Geochemistry, Geophysics, Geosystems

Supporting Information for

Millennial-Scale Instability in the Geomagnetic Field Prior to the Matuyama-Brunhes Reversal

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Introduction

The supplementary information document contains $^{40}Ar/^{39}Ar$ age results, plateaus, K/Ca curves and inverse isochrons for all lava flows (Figures S1 to S13, Tables S1 to S13). In addition, single page summaries of each $^{40}Ar/^{39}Ar$ incremental heating experiment are included. Paleomagnetic results (Figures S15 to S16, Tables S14 to A15) and alternating field (AF) demagnetization plots (Figure S14) are provided.

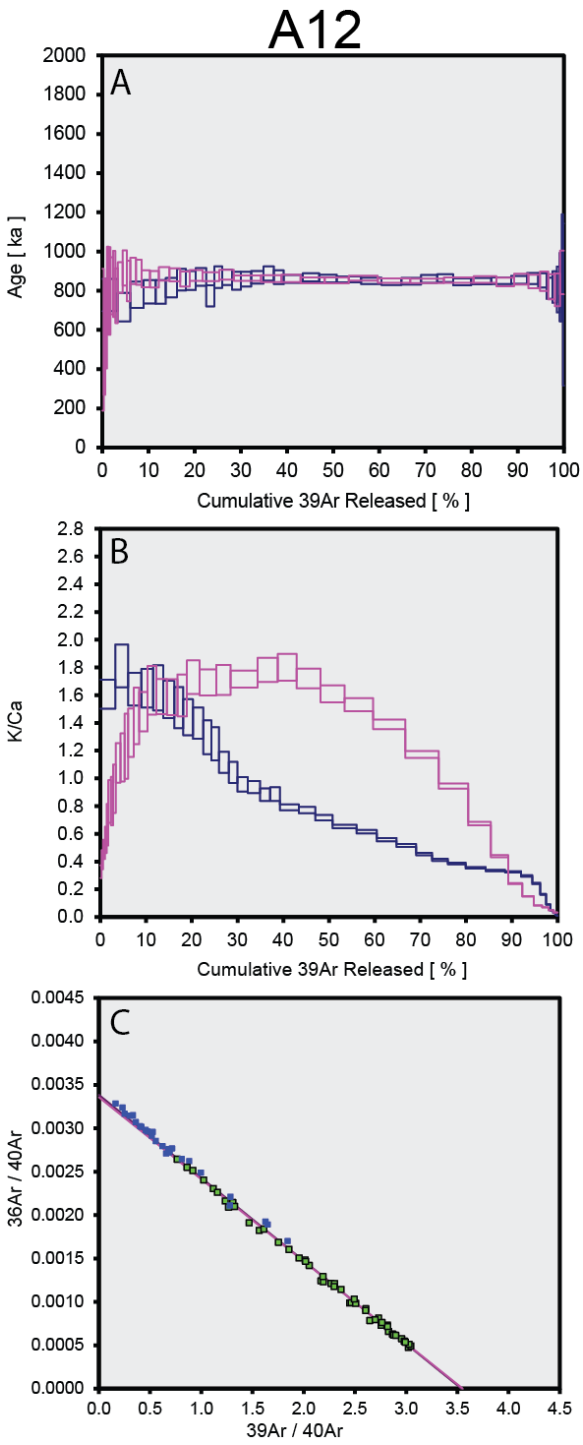


Figure S1: The argon analysis of lava flow A12 (n=2). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Early heating steps are excluded as they represent discordant incremental heating steps and are likely reflecting some partial loss of radiogenic ^{40}Ar through partial degassing. The spectrum becomes flat and concordant within the age plateau at the 2σ confidence interval. **(B)** The K/Ca curve for the incremental heating experiment, showing the petrologic and chemical K/Ca differences between these two samples from a single flow. The two samples show concordant ages with different K/Ca curves. Sample A12-Ar-4 (blue) K/Ca indicates an increased glassy component that degasses a ^{39}Ar(K) component at lower temperatures. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S1: (Below) Incremental heating plateau results for flow A12.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
A12-Ar-2	858.7	4.3	0.95	303.9	6.8
A12-Ar-4	855.7	4.9	0.65	298.2	2.5
Stack	**857.4**	**3.5**	**0.82**	**297.9**	**2.14**

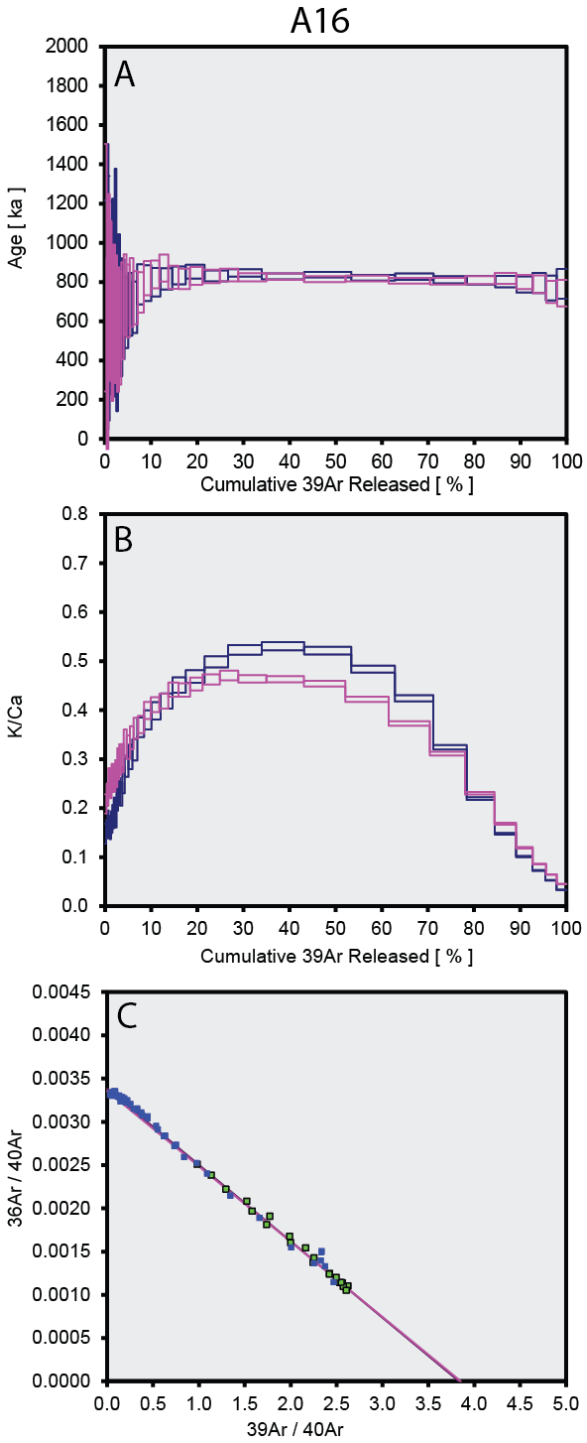


Figure S2: The argon analysis of lava flow A16 (n=2). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Early heating steps are excluded as they represent discordant incremental heating steps and are likely reflecting some partial loss of radiogenic ^{40}Ar through partial degassing. The spectrum becomes flat and concordant within the age plateau at the 2σ confidence interval. The highest temperature heating steps are excluded from the age calculation due to high temperature ^{37}Ar(Ca) and ^{39}Ar(K) recoil. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S2: (Below) Incremental heating plateau results for flow A16.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
A16-Ar-2	816.5	6	0.8	299.9	5.4
A16-Ar-4	815.4	8.6	1.14	275.3	16.0
Stack	**816.1**	**5.0**	**0.89**	**297.8**	**5.0**

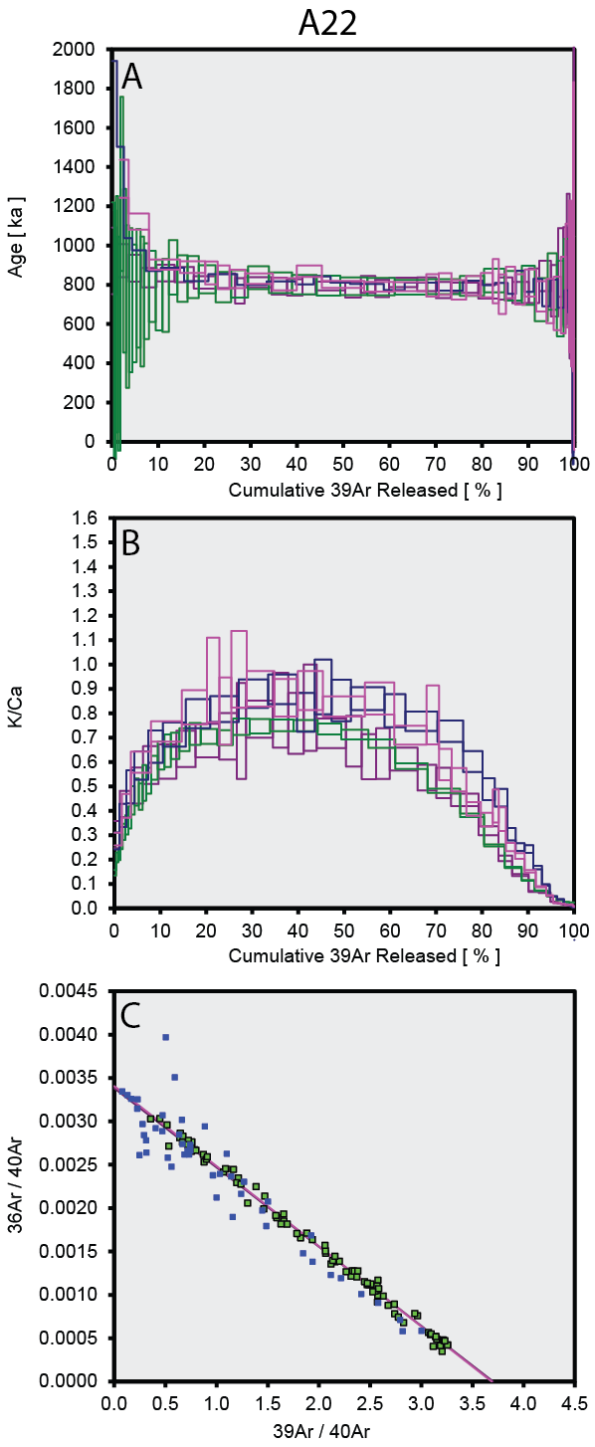


Figure S3: The argon analysis of lava flow A22 (n=4). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Early heating steps are excluded as they represent discordant incremental heating steps and are likely reflecting ^{39}Ar(K) recoil through the preferential degassing of fine-grained secondary (e.g. clay) phases that remain resident in the groundmass separates, even after the applied intense acid leaching protocol, but are resolved at higher temperatures and within the age plateau at the 2σ confidence interval. High temperature heating steps are also excluded due to high temperature ^{37}Ar(Ca) and ^{39}Ar(K) recoil. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S3: (Below) Incremental heating plateau results for flow A22.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
A22-Ar-2	800.7	9.1	0.85	290.3	9.3
A22-Ar-3	801	8.6	1.99	316.7	42.3
A22-Ar-4a	799	13.1	0.34	293.8	5.1
A22-Ar-4b	795.7	8.3	0.86	293.3	5.2
Stack	**799.4**	**4.3**	**0.82**	**293.5**	**2.8**

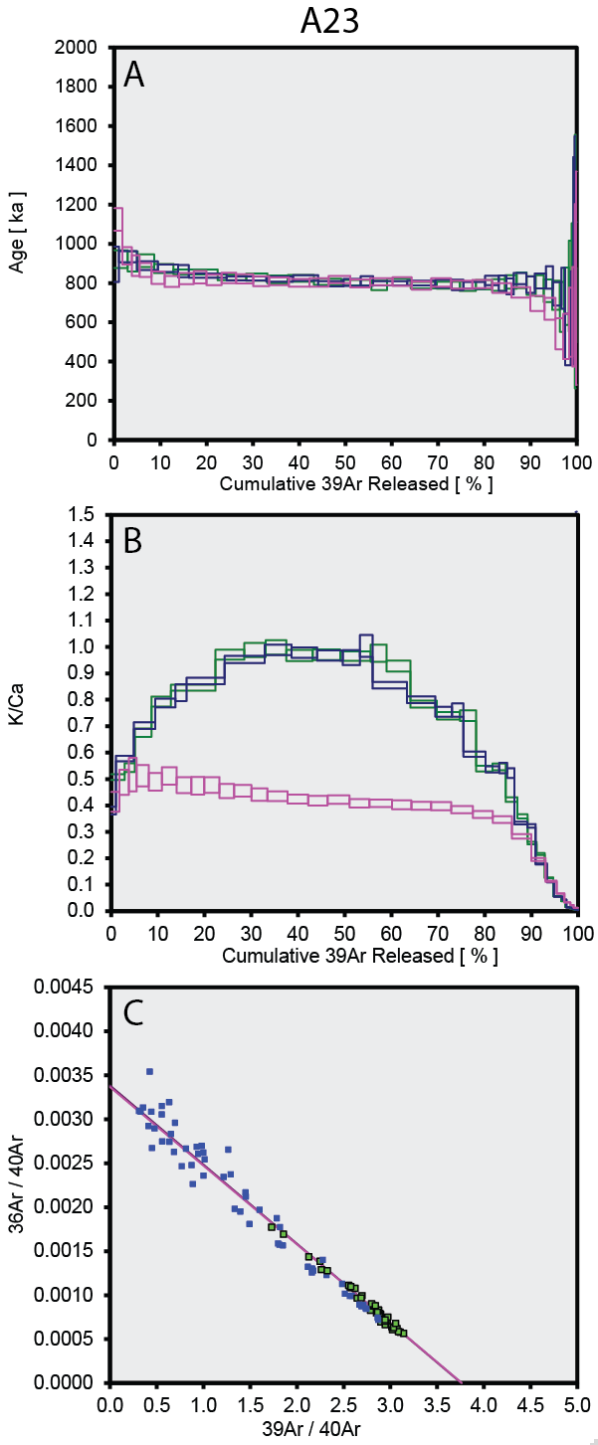


Figure S4: The argon analysis of lava flow A23 (n=3). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Early heating steps are excluded as they represent discordant incremental heating steps and are likely reflecting ^{39}Ar(K) recoil through the preferential degassing of fine-grained secondary (e.g. clay) phases that remain resident in the groundmass separates, even after the applied intense acid leaching protocol, but are resolved at higher temperatures and within the age plateau at the 2σ confidence interval. High temperature heating steps are also excluded due to high temperature ^{37}Ar(Ca) and ^{39}Ar(K) recoil. **(B)** The K/Ca curve for the incremental heating experiment, showing the petrologic and chemical K/Ca differences between these two samples from a single flow. The two samples show concordant ages with different K/Ca curves. Sample A23-Ar-1 (pink) K/Ca indicates an increased glassy component that degasses a ^{39}Ar(K) component at lower temperatures. Samples A23-Ar-3 and 4 display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S4: (Below) Incremental heating plateau results for flow A23.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
A23-Ar-1	805.4	5.7	0.97	287.3	29.3
A23-Ar-3	799.7	5.4	0.68	304.2	13.6
A23-Ar-4	797.1	6.3	0.77	299.5	23.8
Stack	**800.9**	**3.6**	**0.88**	**297.0**	**10.0**

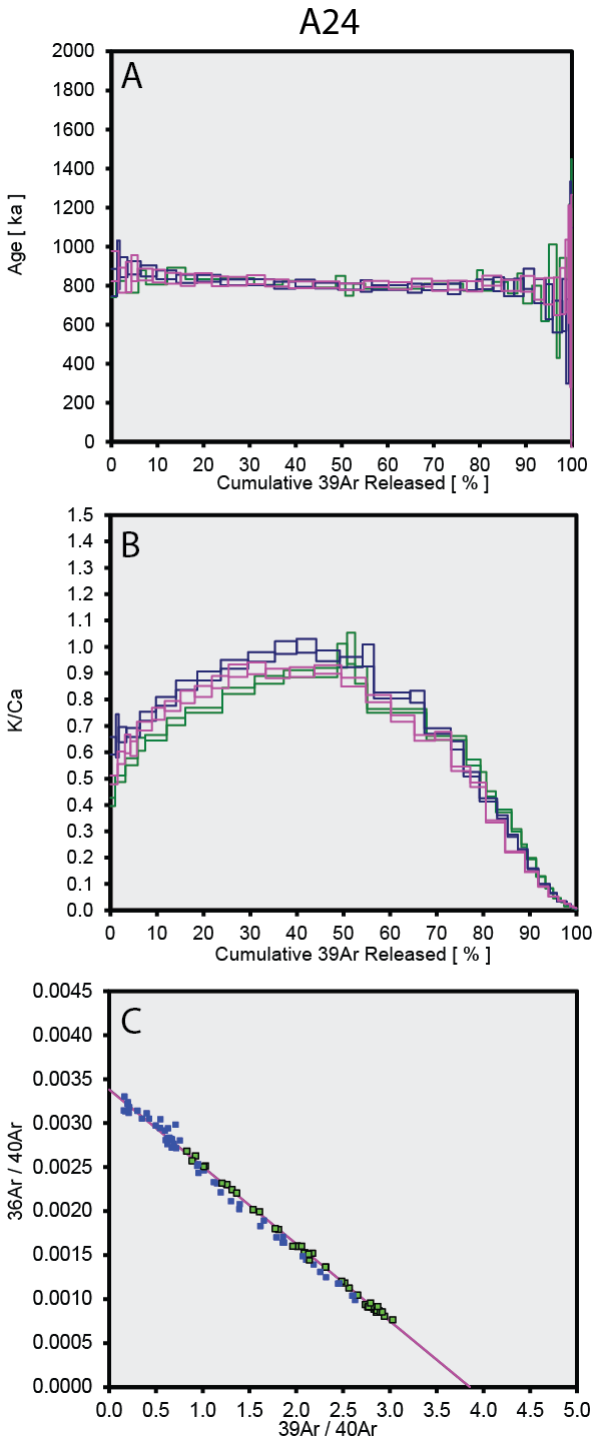


Figure S5: The argon analysis of lava flow A24 (n=3). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Early heating steps are excluded as they represent discordant incremental heating steps and are likely reflecting ^{39}Ar(K) recoil through the preferential degassing of fine-grained secondary (e.g. clay) phases that remain resident in the groundmass separates, even after the applied intense acid leaching protocol, but are resolved at higher temperatures and within the age plateau at the 2σ confidence interval. High temperature heating steps are also excluded due to high temperature ^{37}Ar(Ca) and ^{39}Ar(K) recoil. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S5: (Below) Incremental heating plateau results for flow A24.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
A24-Ar-1	804.6	5.9	0.68	292.5	5.1
A24-Ar-2	797	5.5	0.73	299	5.1
A24-Ar-3	798.8	6.0	0.66	296.6	6.6
Stack	**800.0**	**3.6**	**0.75**	**295.8**	**2.9**

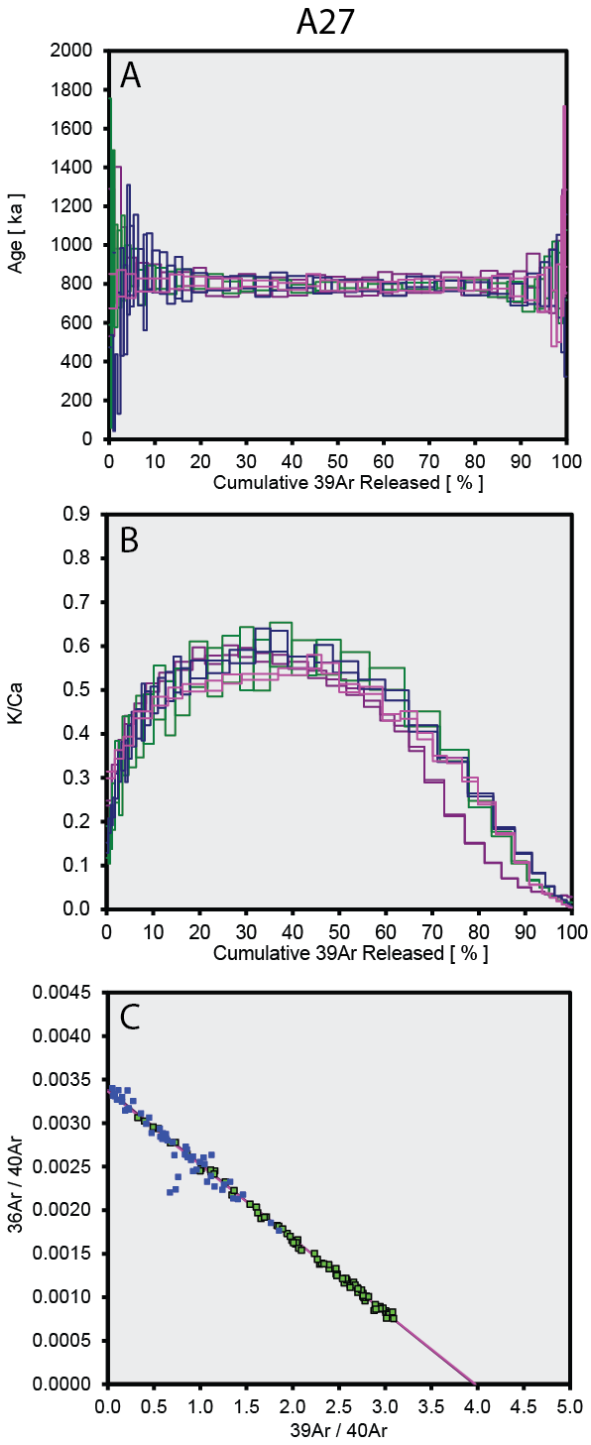


Figure S6: The argon analysis of lava flow A27 (n=4). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. The plateau is flat for most analyses with some slight low temperature recoil effects seen within some spectrums. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S6: (Below) Incremental heating plateau results for flow A27.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
A27-Ar-1	796.9	6.0	0.48	294.6	3.6
A27-Ar-3a	795.8	9.2	0.52	297.2	12.9
A27-Ar-3b	790.1	6.9	0.49	300	14.2
A27-Ar-4	800	10.0	0.5	299	3.4
Stack	**795.1**	**4.0**	**0.52**	**297.4**	**2.3**

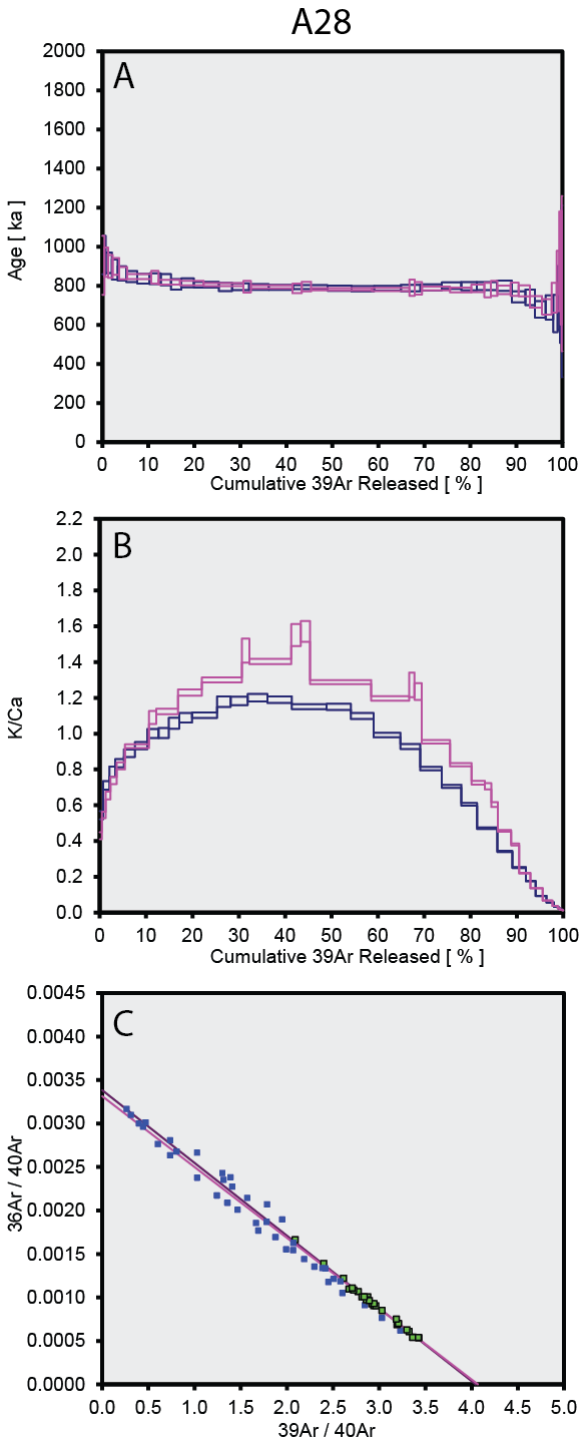


Figure S7: The argon analysis of lava flow A28 (n=2). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Early heating steps are excluded as they represent discordant incremental heating steps and are likely reflecting ^{39}Ar(K) recoil through the preferential degassing of fine-grained secondary (e.g. clay) phases that remain resident in the groundmass separates, even after the applied intense acid leaching protocol, but are resolved at higher temperatures and within the age plateau at the 2σ confidence interval. High temperature heating steps are also excluded due to high temperature ^{37}Ar(Ca) and ^{39}Ar(K) recoil. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S7: (Below) Incremental heating plateau results for flow A28.

	Age			40Ar/36Ar	
Sample	**(ka)**	**2σ**	**MSWD**	**int**	**2σ**
A28-Ar-1	785.0	3.5	0.81	292.4	10.3
A28-Ar-3	794.1	4.1	0.78	303.5	8.7
Stack	**788.7**	**3.1**	**1.19**	**303.6**	**5.1**

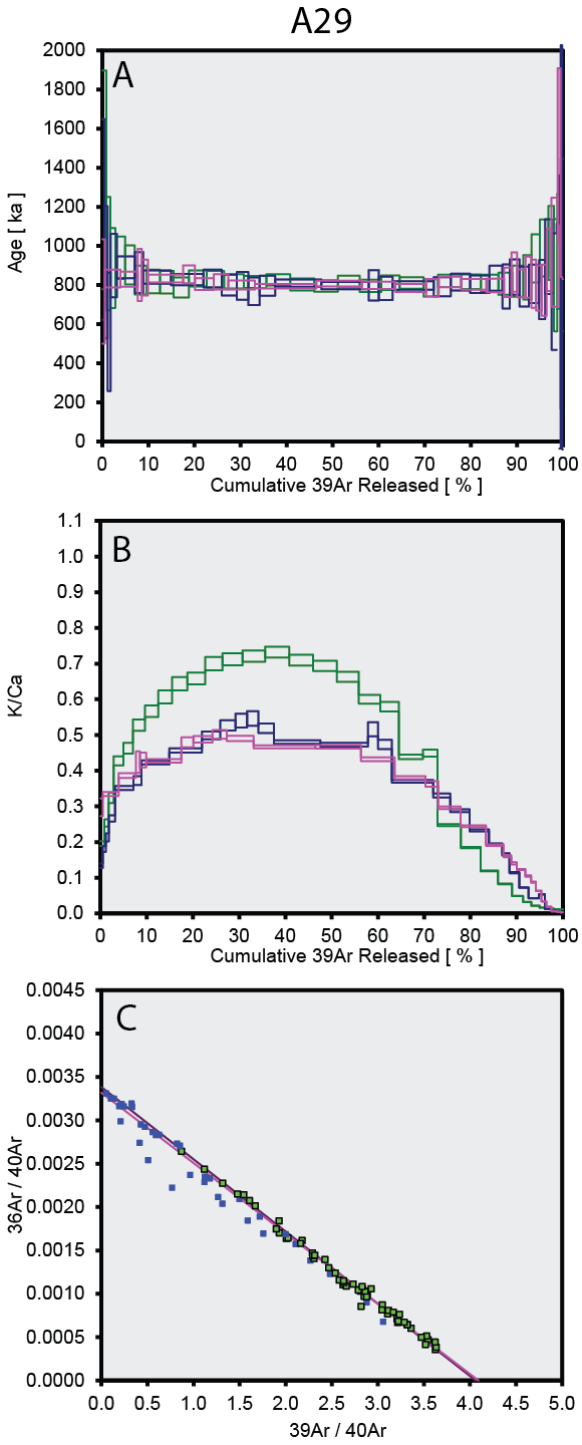


Figure S8: The argon analysis of lava flow A29 (n=3). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. The plateau is flat for most analyses with some slight low temperature recoil effects seen within some spectrums. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S8: (Below) Incremental heating plateau results for flow A29.

	Age			40Ar/36Ar	
Sample	**(ka)**	**2σ**	**MSWD**	**int**	**2σ**
A29-Ar-1	799.7	6.5	0.56	304.2	28
A29-Ar-2	807.6	8.6	0.69	308	11
A29-Ar-3	812.2	8.5	0.47	297.4	5.7
Stack	**805.1**	**4.6**	**0.66**	**301.3**	**4.2**

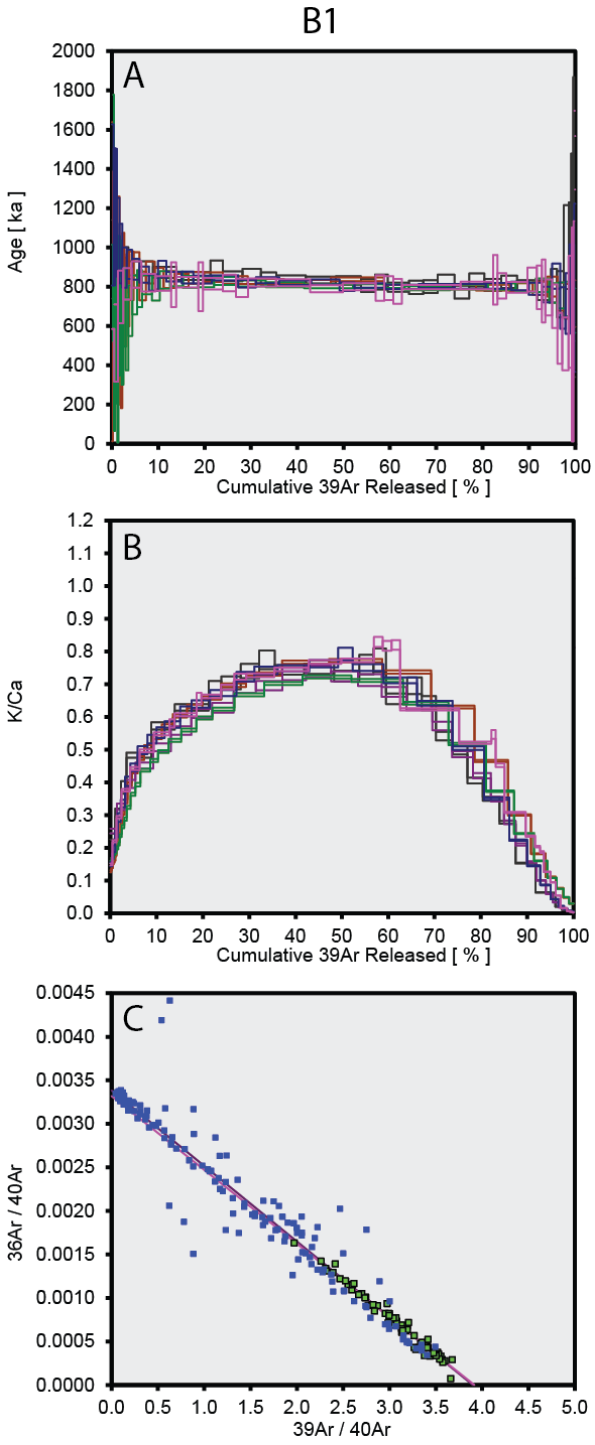


Figure S9: The argon analysis of lava flow B1 (n=6). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Some analyses had early heating steps that were excluded as they represent discordant incremental heating steps and are likely reflecting some partial loss of radiogenic ^{40}Ar through partial degassing. The spectrum becomes flat and concordant within the age plateau at the 2σ confidence interval. Some high temperature heating steps are also excluded due to high temperature ^{37}Ar(Ca) and ^{39}Ar(K) recoil. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S9: (Below) Incremental heating plateau results for flow B1.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
B1-Ar-1a	805.8	6.0	0.84	309.6	15.0
B1-Ar-1b	802.4	5.2	0.77	269.2	35.0
B1-Ar-2a	802.7	5	1.16	316.7	20.0
B1-Ar-2b	794.5	7.4	1.27	329.7	27.0
B1-Ar-4a	798.5	6.5	0.07	292.3	23.0
B1-Ar-4b	806.8	11.4	1.32	289.4	38.0
Stack	**801.7**	**2.9**	**1.05**	**301.2**	**7.1**

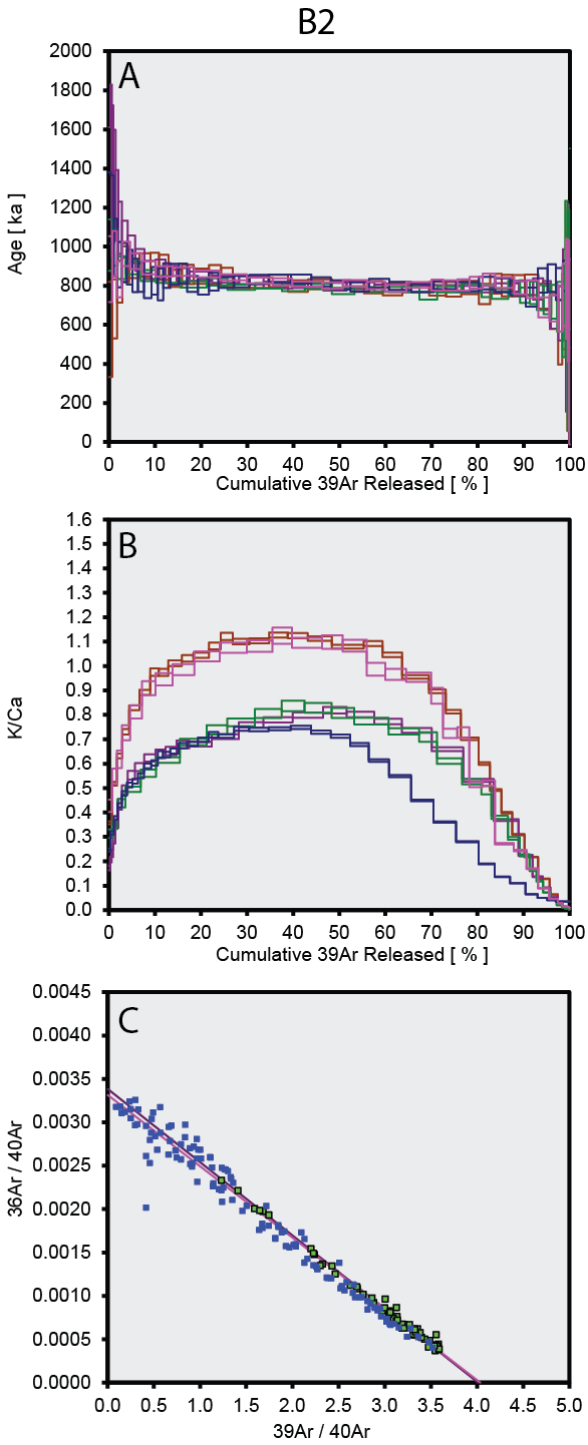


Figure S10: The argon analysis of lava flow B2 (n=5). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Early heating steps are excluded as they represent discordant incremental heating steps and are likely reflecting ^{39}Ar(K) recoil through the preferential degassing of fine-grained secondary (e.g. clay) phases that remain resident in the groundmass separates, even after the applied intense acid leaching protocol, but are resolved at higher temperatures and within the age plateau at the 2σ confidence interval. High temperature heating steps are also excluded due to high temperature ^{37}Ar(Ca) and ^{39}Ar(K) recoil. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S10: (Below) Incremental heating plateau results for flow B2.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
B2-Ar-2a	795	8.7	0.51	297.6	8.5
B2-Ar-2b	804.9	5.7	0.98	296	6.1
B2-Ar-3a	800.3	7.8	0.52	293.7	16.8
B2-Ar-3b	777	7.8	1.72	296.4	53
B2-Ar-4	793	6.0	0.82	292.9	14
Stack	**793.7**	**4.1**	**1.74**	**301.7**	**5.1**

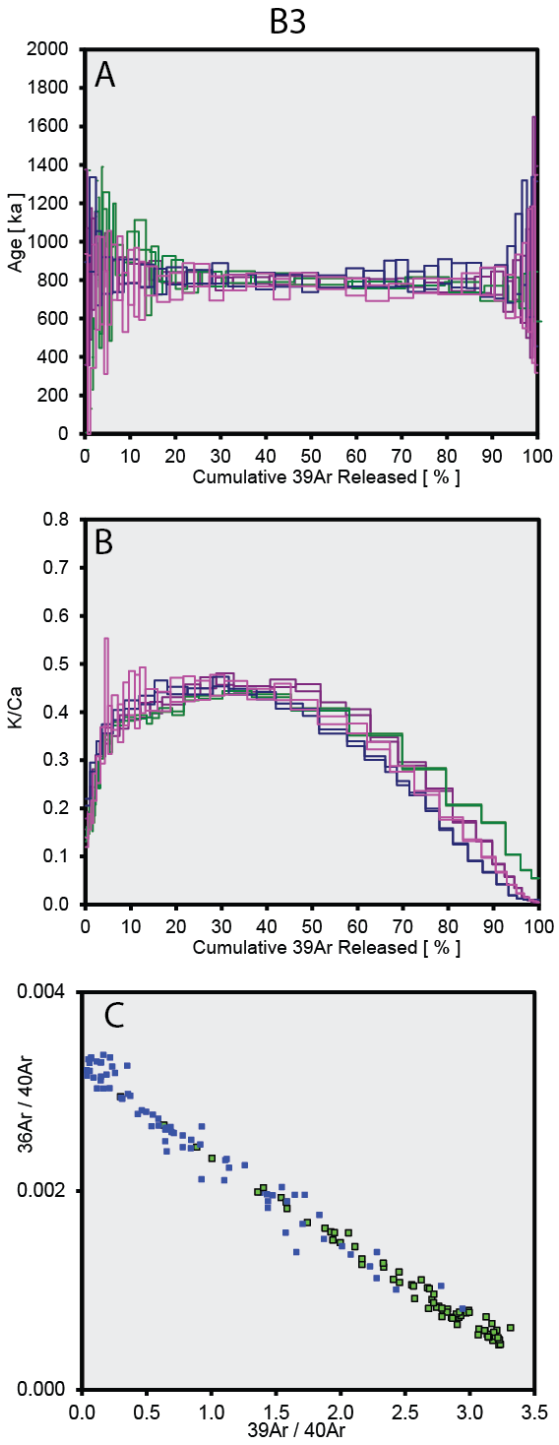


Figure S11: The argon analysis of lava flow B3 (n=4). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Early heating steps are excluded as they represent discordant incremental heating steps and are likely reflecting ^{39}Ar(K) recoil through the preferential degassing of fine-grained secondary (e.g. clay) phases that remain resident in the groundmass separates, even after the applied intense acid leaching protocol, but are resolved at higher temperatures and within the age plateau at the 2σ confidence interval.
High temperature heating steps are also excluded due to high temperature ^{37}Ar(Ca) and ^{39}Ar(K) recoil. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S11: (Below) Incremental heating plateau results for flow B3. Sample B3-Ar-2 was excluded from the mean due to excess ^{40}Ar.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
B3-Ar-2	901.5	22.2	2.68	328.3	12
B3-Ar-3a	776.6	10.7	0.93	298.5	18
B3-Ar-3b	809	10.2	0.45	298.1	4.3
B3-Ar-4a	793.9	11.3	1.59	340.33	83
B3-Ar-4b	789.8	7.1	0.97	294.2	22
Stack	**792.2**	**4.8**	**1.08**	**300.2**	**3.8**

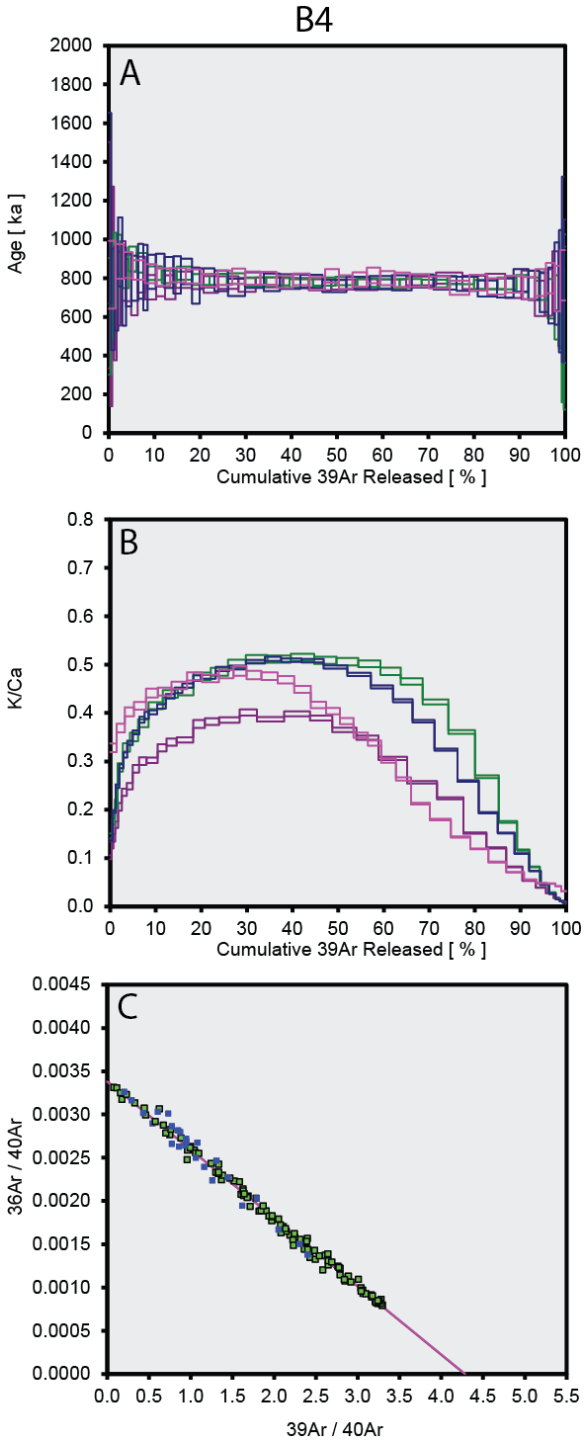


Figure S12: The argon analysis of lava flow B4 (n=4). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

Table S12: (Below) Incremental heating plateau results for flow B4.

Sample	Age (ka)	2σ	MSWD	40Ar/36Ar int	2σ
B4-Ar-2	790.7	7.4	0.88	292.5	6.4
B4-Ar-4a	778.4	9	0.73	297.8	5.1
B4-Ar-4b	779.9	6.1	0.55	297.2	16
B4-Ar-5	775.7	7.7	0.46	295.4	2.1
Stack	**781.3**	**3.9**	**0.96**	**296.0**	**1.7**

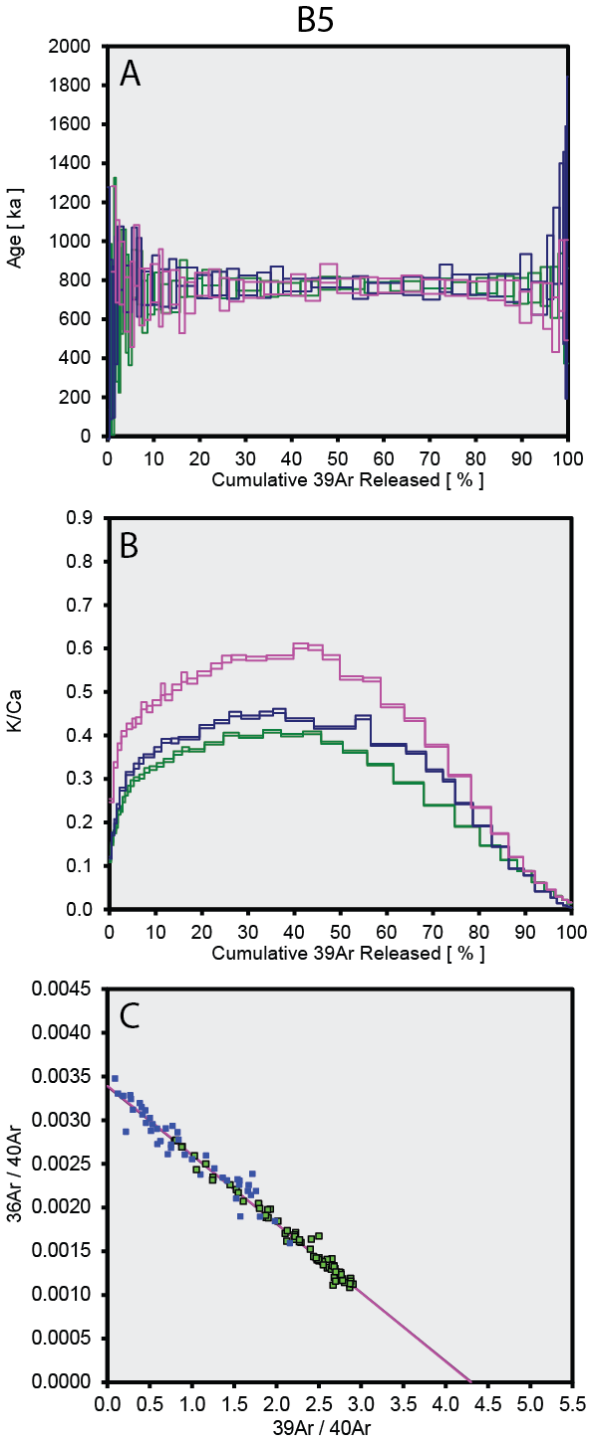
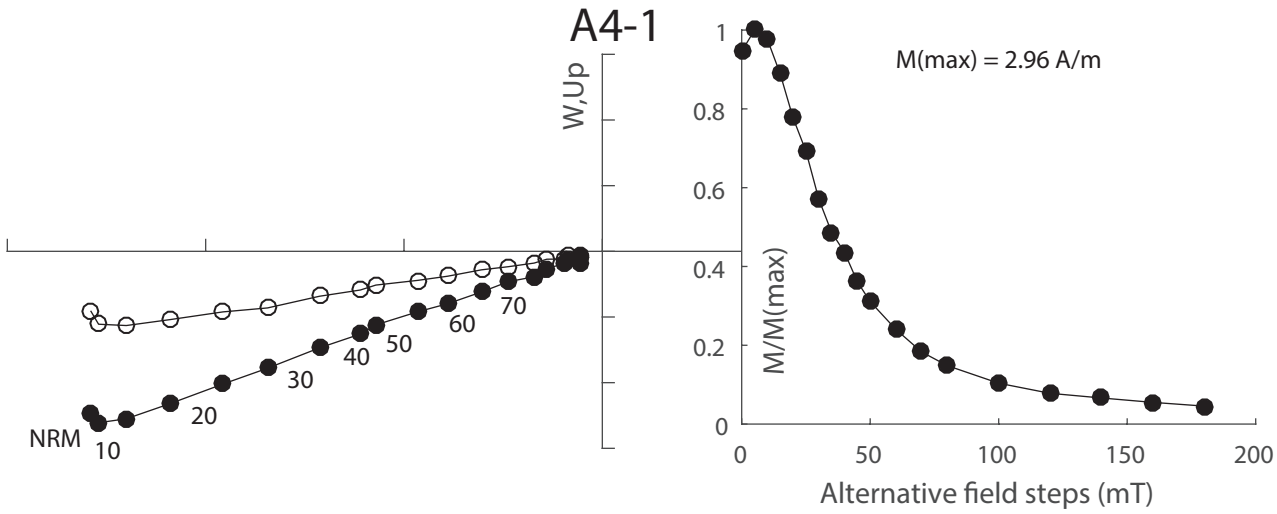


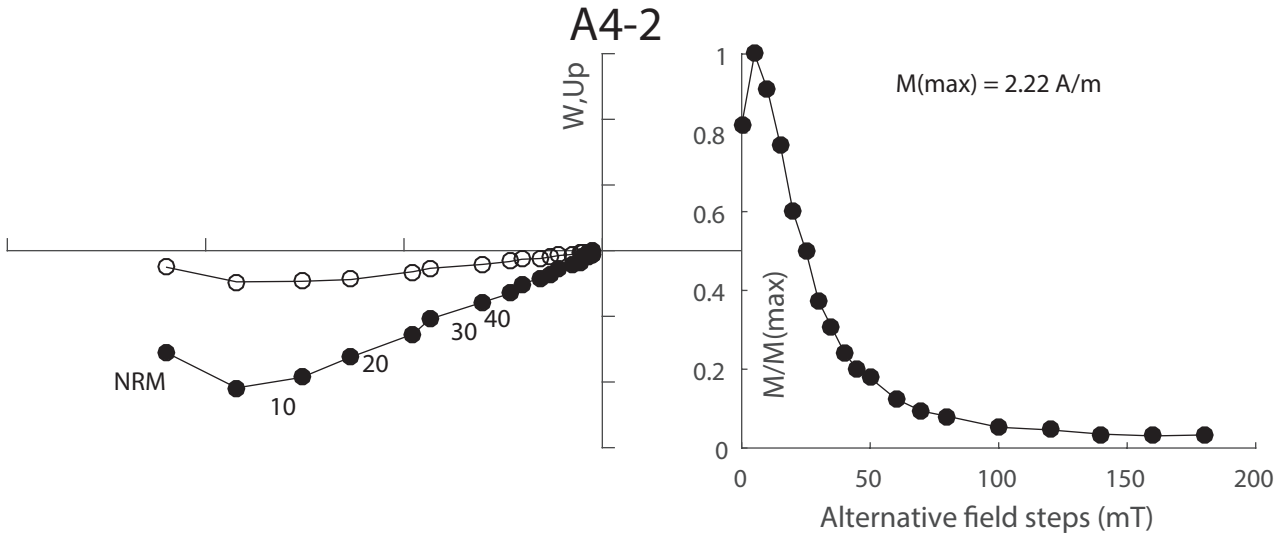
Figure S13: The argon analysis of lava flow B5 (n=3). **(A)** The incremental heating plateau with age uncertainties reported at the 2σ confidence level. Early heating steps are excluded as they represent discordant incremental heating steps and are likely reflecting ^{39}Ar(K) recoil through the preferential degassing of fine-grained secondary (e.g. clay) phases that remain resident in the groundmass separates, even after the applied intense acid leaching protocol, but are resolved at higher temperatures and within the age plateau at the 2σ confidence interval.
High temperature heating steps are also excluded due to high temperature ^{37}Ar(Ca) and ^{39}Ar(K) recoil. **(B)** The K/Ca curve for the incremental heating experiment. Samples display a saddled pattern indicating early degassing of some alteration components the ^{39}Ar(K) increases as the interstitial mesostatsis degasses. The ^{37}Ar(Ca) component increase towards the higher temperature steps as plagioclase and clinopyroxene components begin degassing. **(C)** The inverse isochron, whereby green squares represent points within the selected plateau and blue squares are excluded points from the heating plateau.

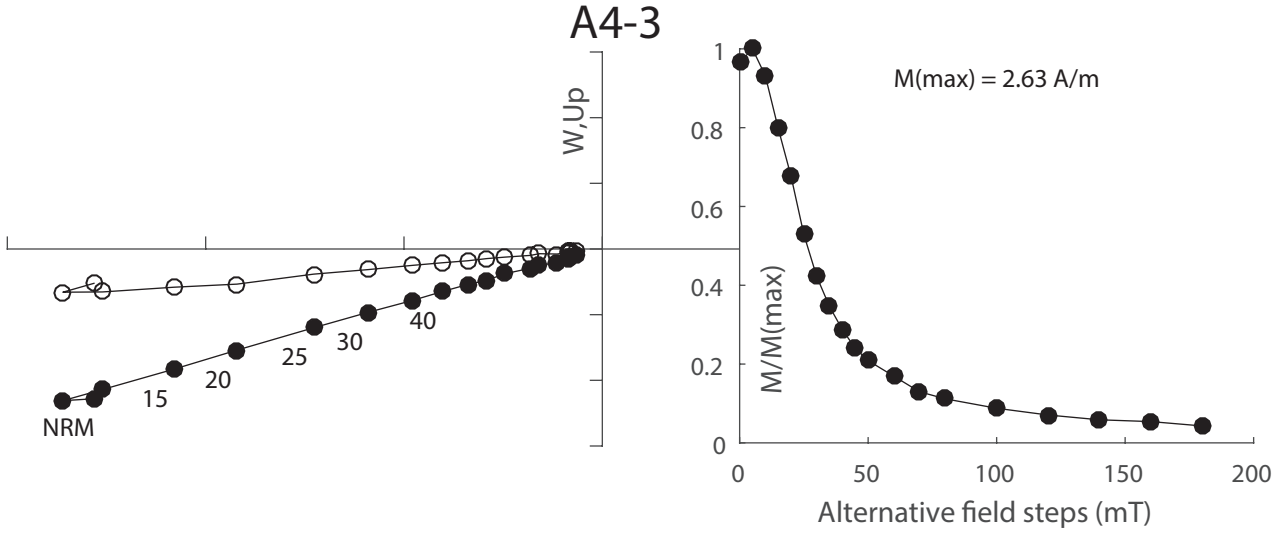
Table S13: (Below) Incremental heating plateau results for flow B5.

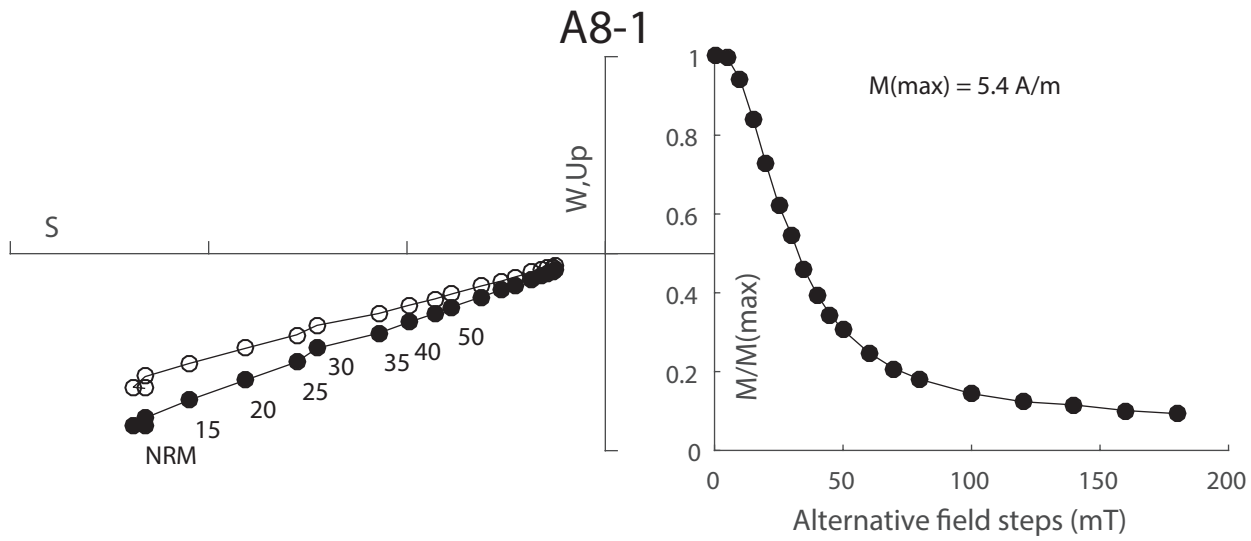
	Age			40Ar/36Ar	
Sample	**(ka)**	**2σ**	**MSWD**	**int**	**2σ**
B5-Ar-3a	764.3	10.5	0.77	279.06	19
B5-Ar-3b	778.3	10.5	0.48	299.4	8.8
B5-Ar-4	769.4	9.1	0.39	293.9	5.0
Stack	**770.6**	**5.9**	**0.61**	**294.6**	**4.2**

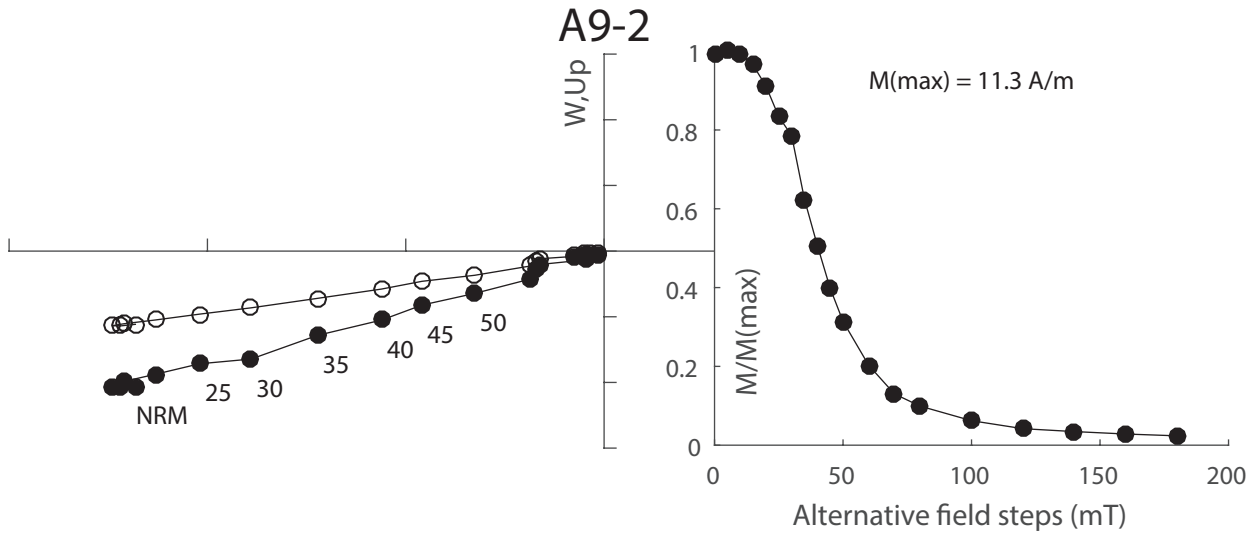
Figure S14: The following plots display alternating field (AF) demagnetization steps for paleomagnetic sample analysis. Shown are both the relative magnetization (M/Mmax) per alternating field steps (mT) and Zijderveld plots for the horizontal (filled circles) and vertical (unfilled circles) orientations. Select AF steps (mT) are shown on the Zijderveld plots.

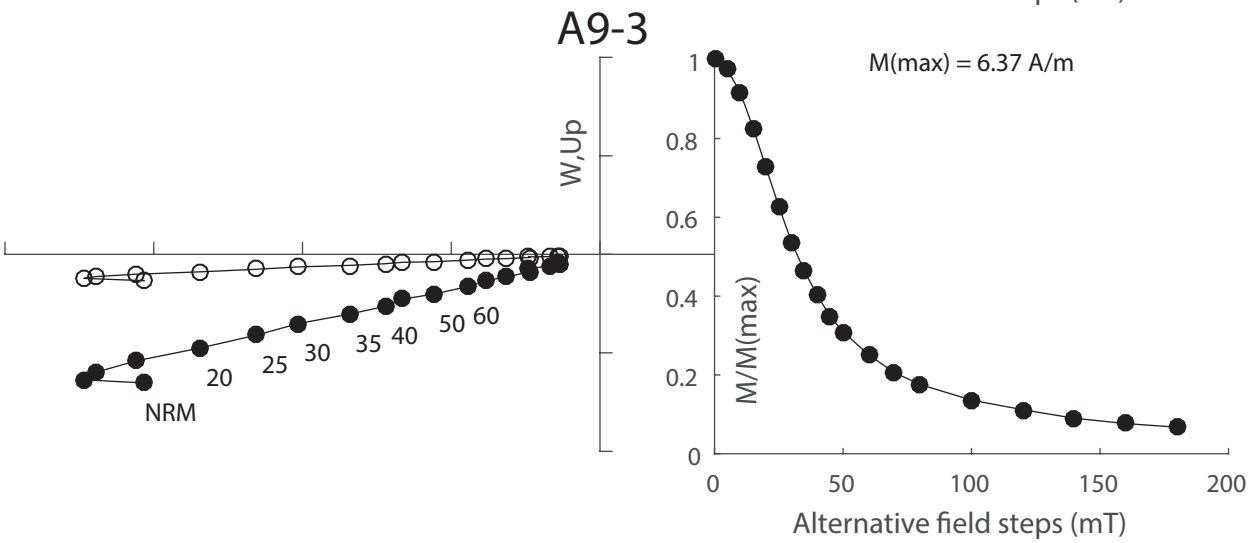

A4-1
W,Up
M(max) = 2.96 A/m
M/M(max)
NRM
10
20
30
40
50
60
70
Alternative field steps (mT)

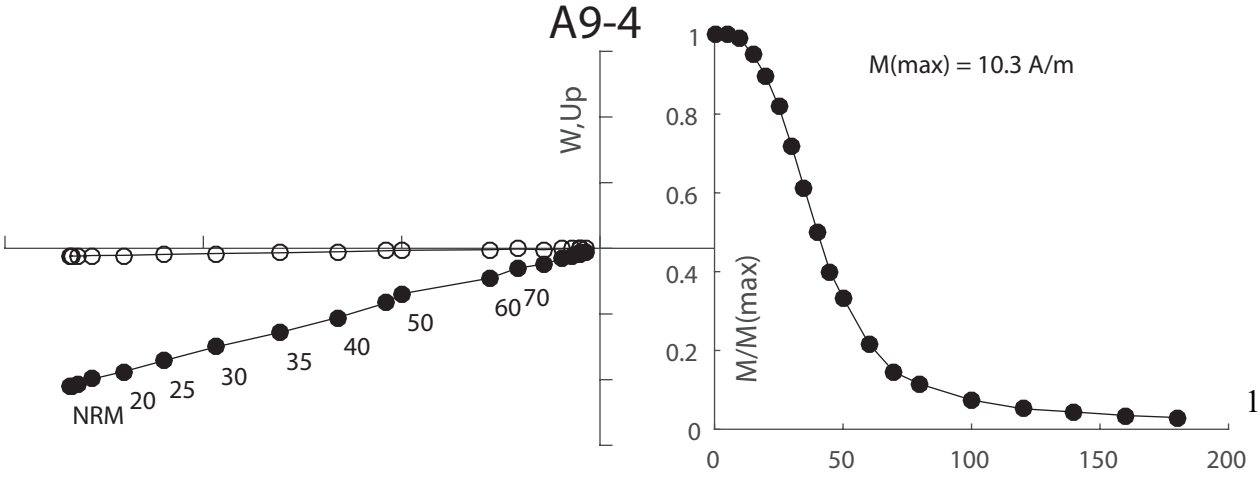

A4-2
W,Up
M(max) = 2.22 A/m
M/M(max)
NRM
10
20
30
40
Alternative field steps (mT)

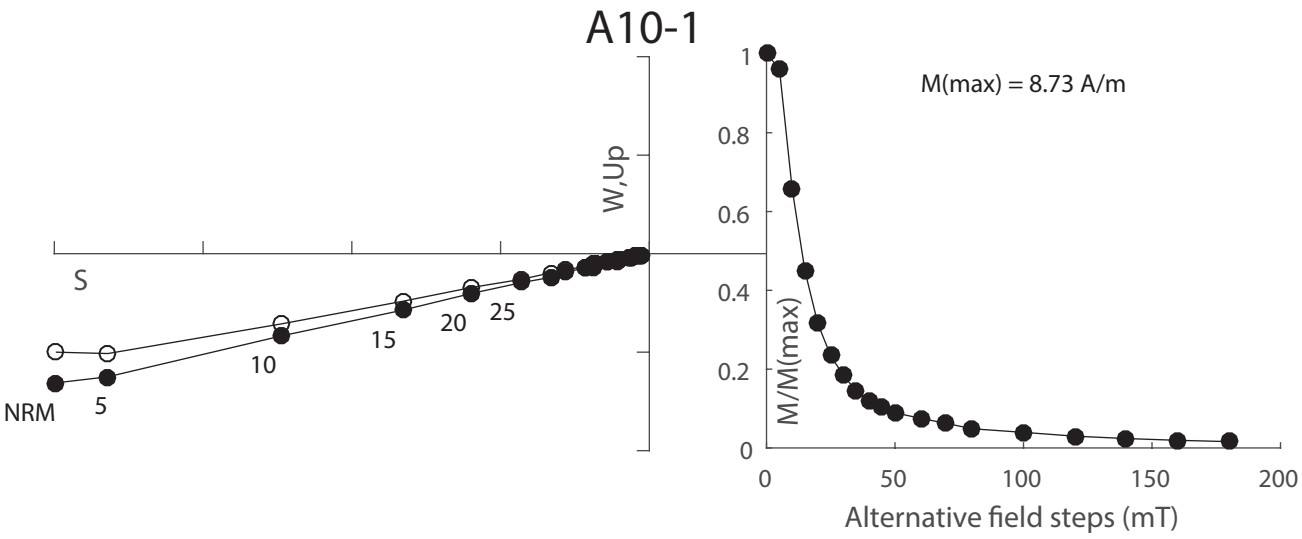

A4-3
W,Up
M(max) = 2.63 A/m
M/M(max)
NRM
15
20
25
30
40
Alternative field steps (mT)

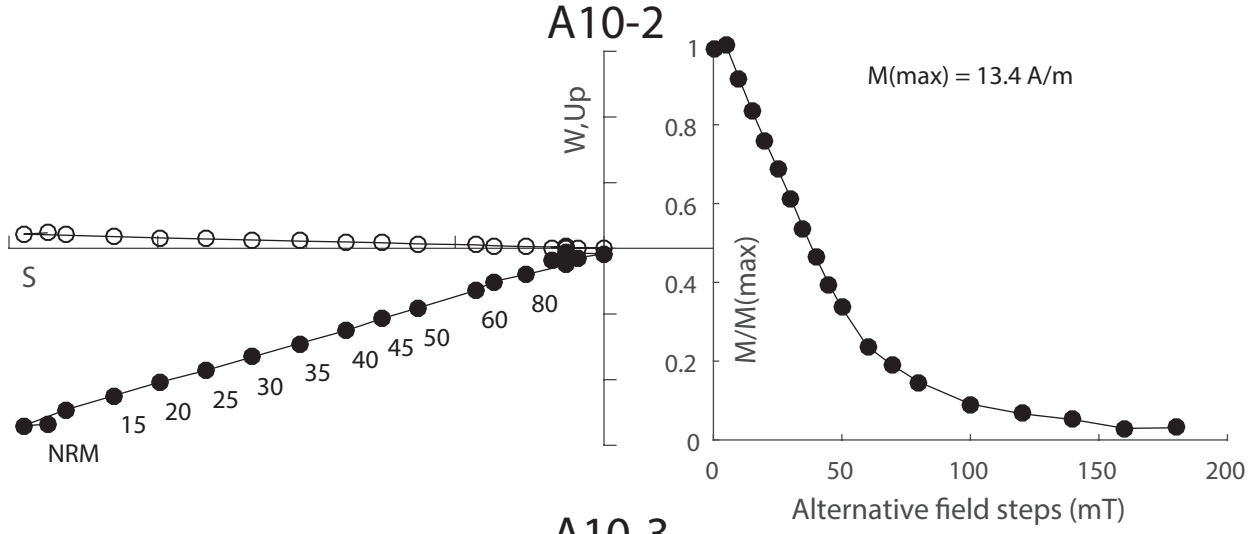

A8-1
M(max) = 5.4 A/m
S
W,Up
M/M(max)
NRM
15
20
25
30
35
40
50
Alternative field steps (mT)

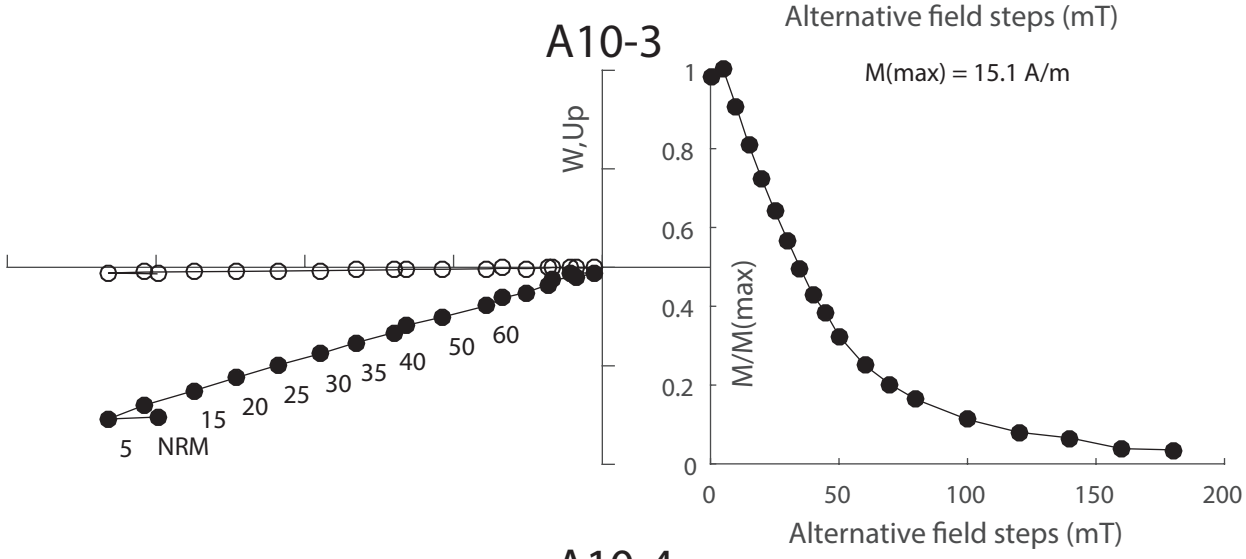

A9-2
M(max) = 11.3 A/m
W,Up
M/M(max)
NRM
25
30
35
40
45
50
Alternative field steps (mT)

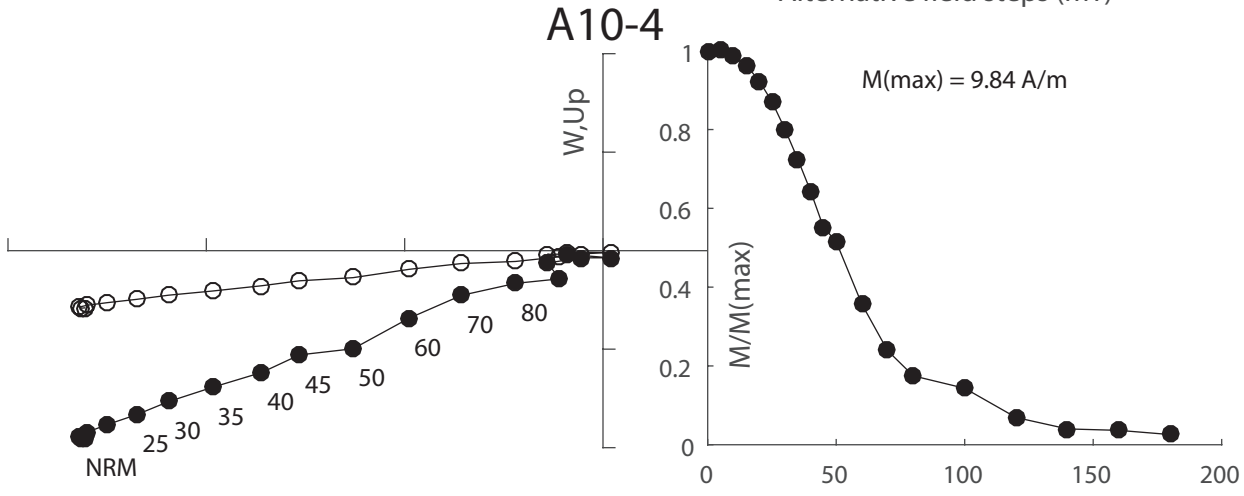

A9-3
M(max) = 6.37 A/m
W,Up
M/M(max)
NRM
20
25
30
35
40
50
60
Alternative field steps (mT)

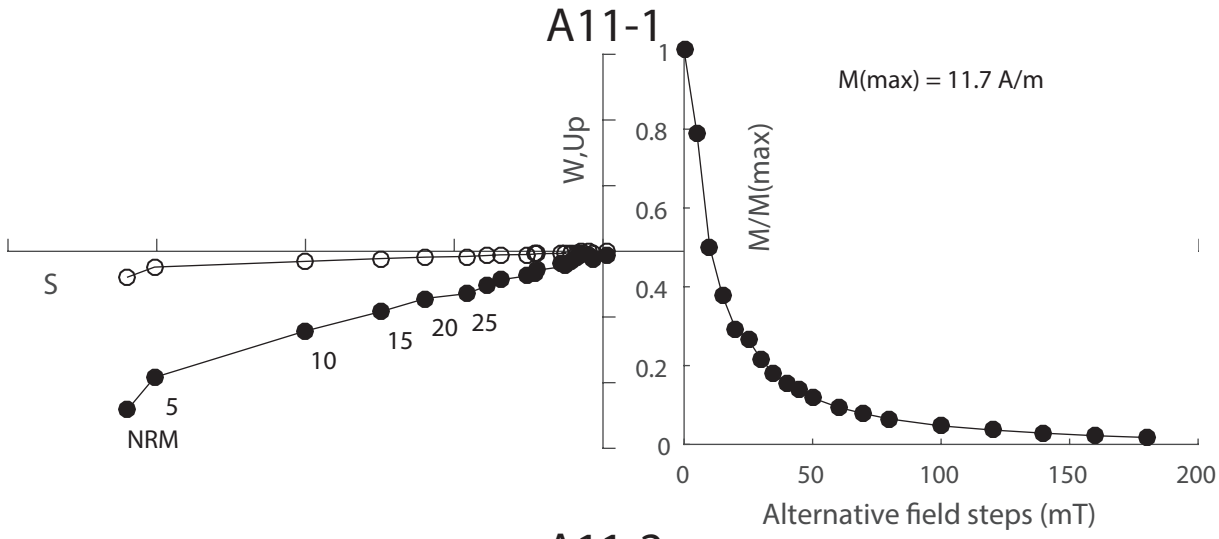

A9-4
M(max) = 10.3 A/m
W,Up
M/M(max)
NRM
20
25
30
35
40
50
60
70

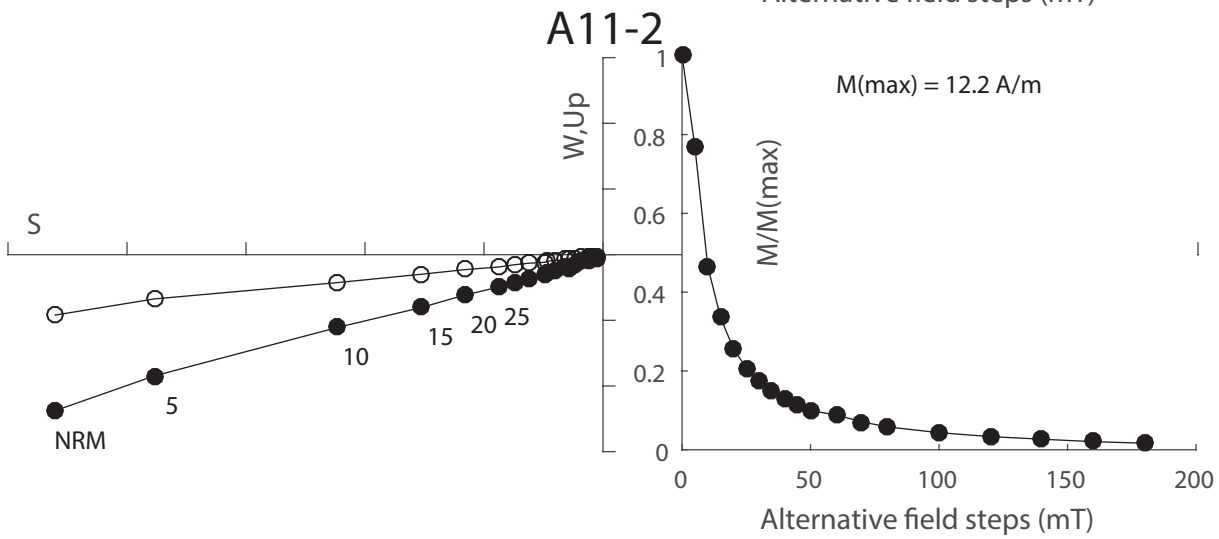

A10-1
M(max) = 8.73 A/m
W,Up
S
NRM
5
10
15
20
25
M/M(max)
Alternative field steps (mT)

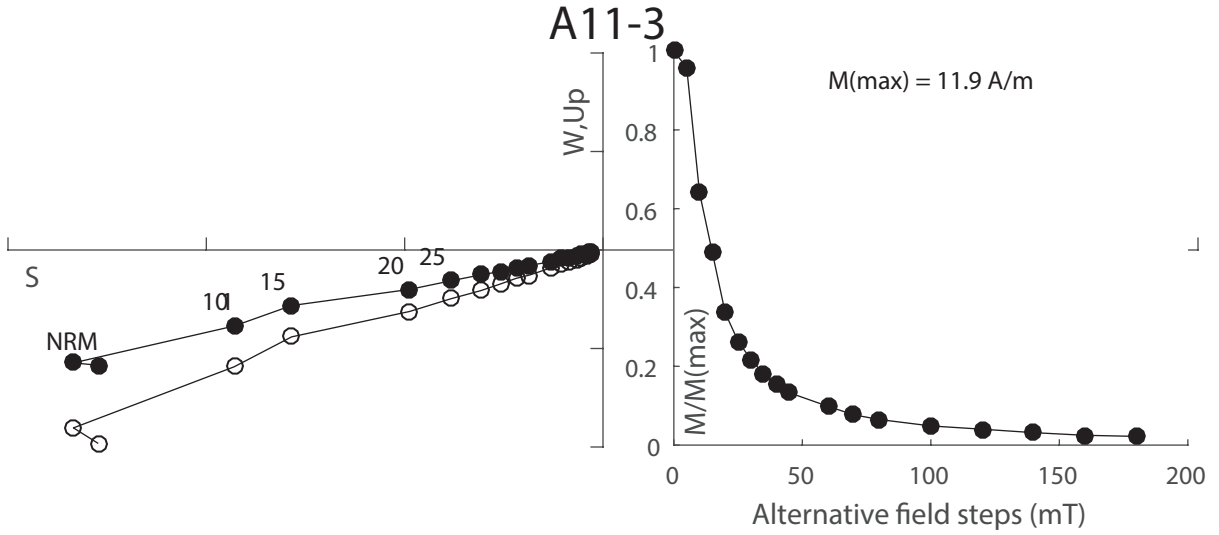

A10-2
M(max) = 13.4 A/m
W,Up
S
NRM
15
20
25
30
35
40
45
50
60
80
M/M(max)
Alternative field steps (mT)

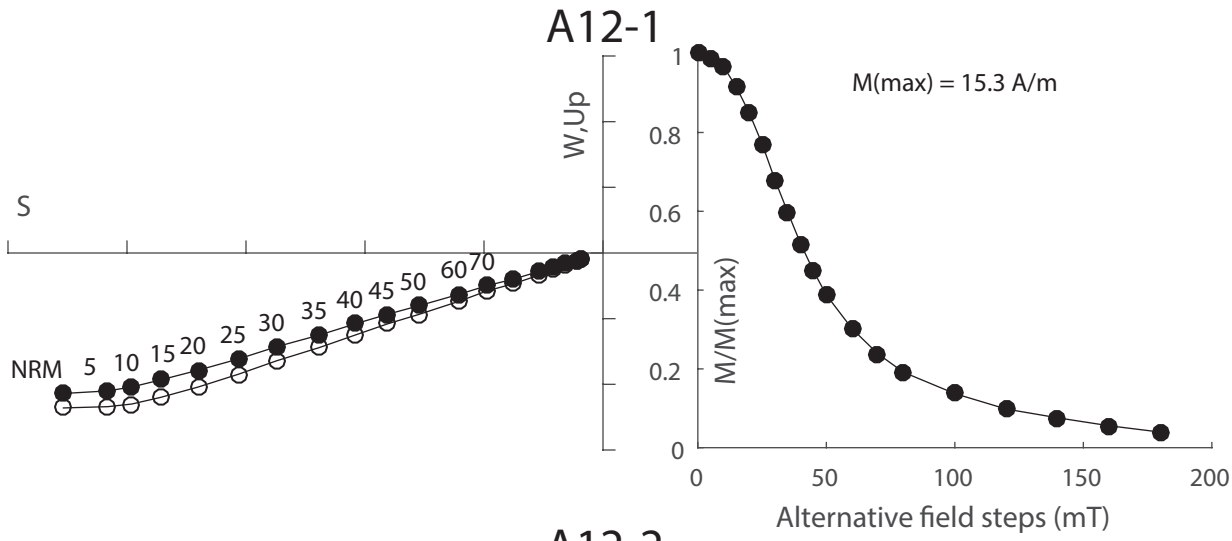

A10-3
M(max) = 15.1 A/m
W,Up
5
NRM
15
20
25
30
35
40
50
60
M/M(max)
Alternative field steps (mT)

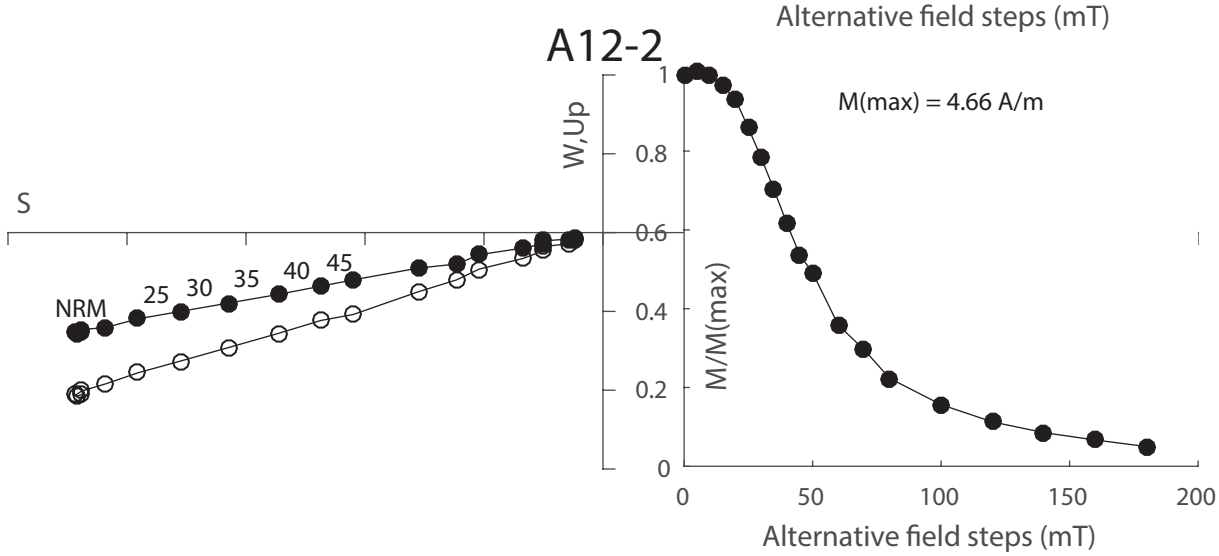

A10-4
M(max) = 9.84 A/m
W,Up
NRM
25
30
35
40
45
50
60
70
80
M/M(max)

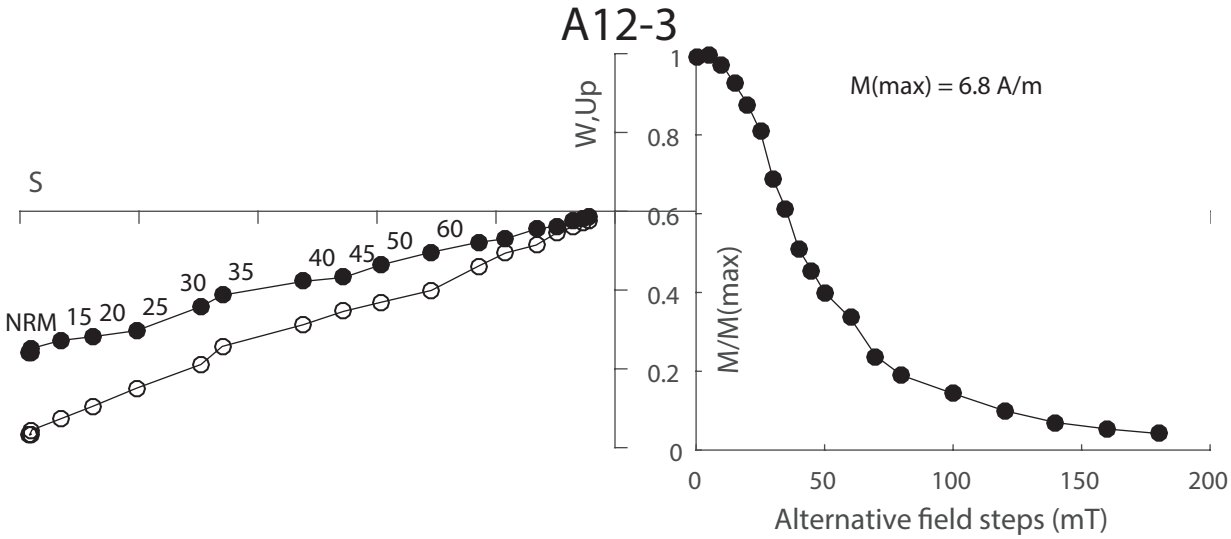

A11-1
M(max) = 11.7 A/m
W,Up
M/M(max)
S
NRM
5
10
15
20
25
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

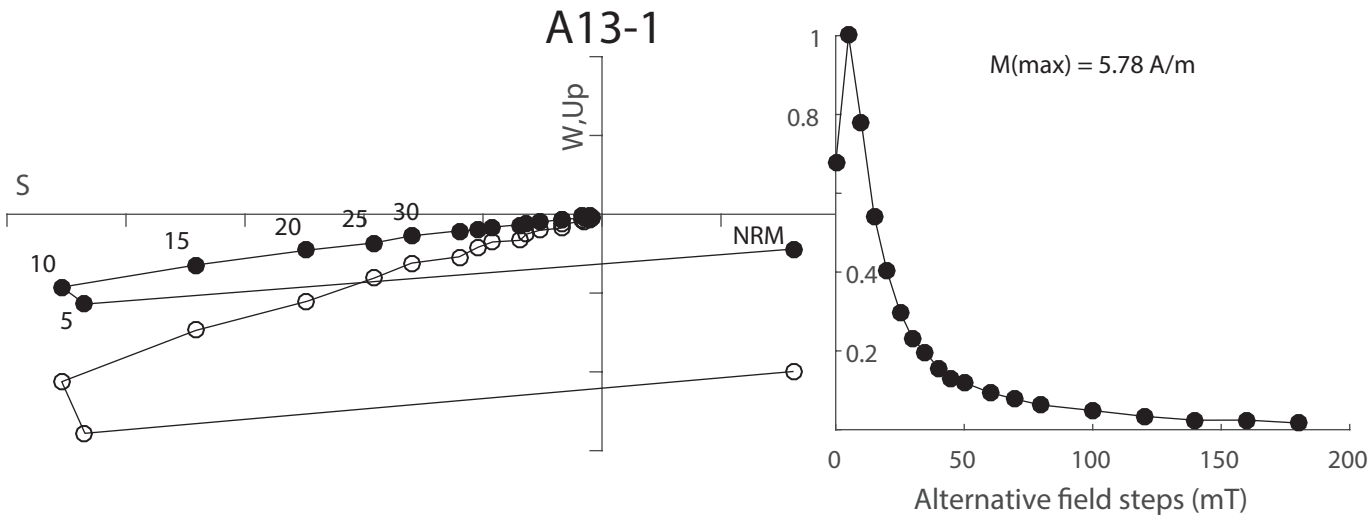

A11-2
M(max) = 12.2 A/m
W,Up
M/M(max)
S
NRM
5
10
15
20
25
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

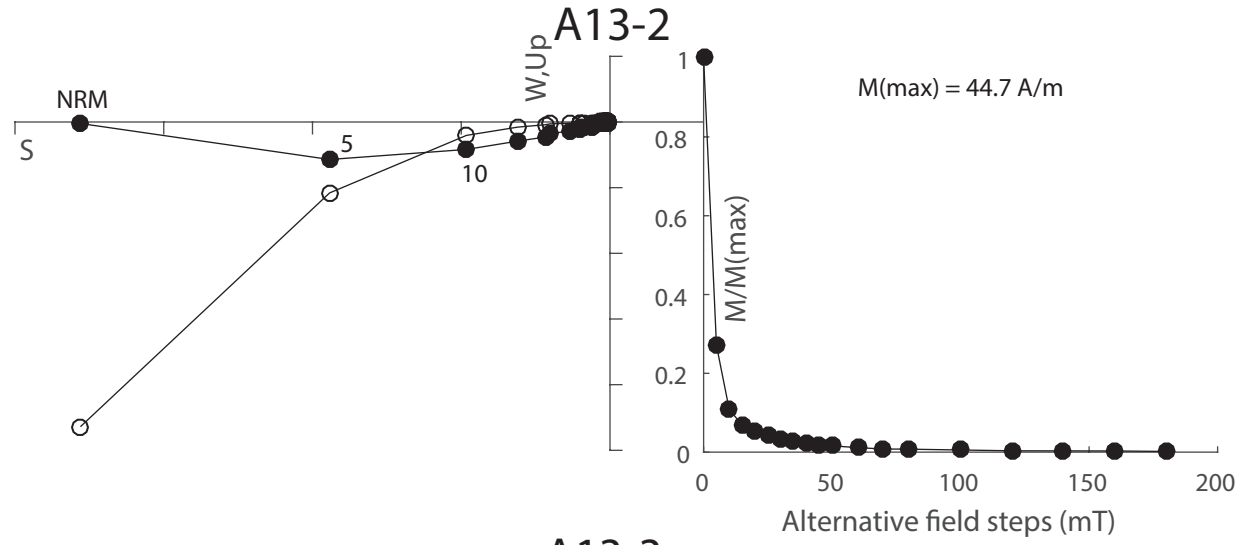

A11-3
M(max) = 11.9 A/m
W,Up
M/M(max)
S
NRM
10
15
20
25
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

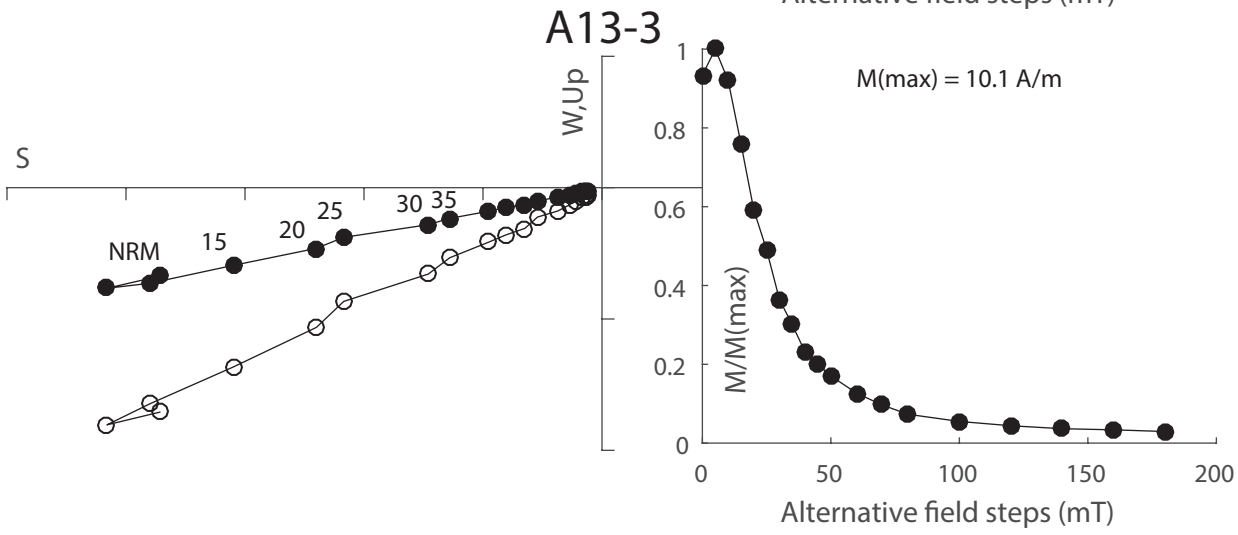

A12-1
M(max) = 15.3 A/m
W,Up
S
NRM 5 10 15 20 25 30 35 40 45 50 60 70
M/M(max)
0 0.2 0.4 0.6 0.8 1
0 50 100 150 200
Alternative field steps (mT)

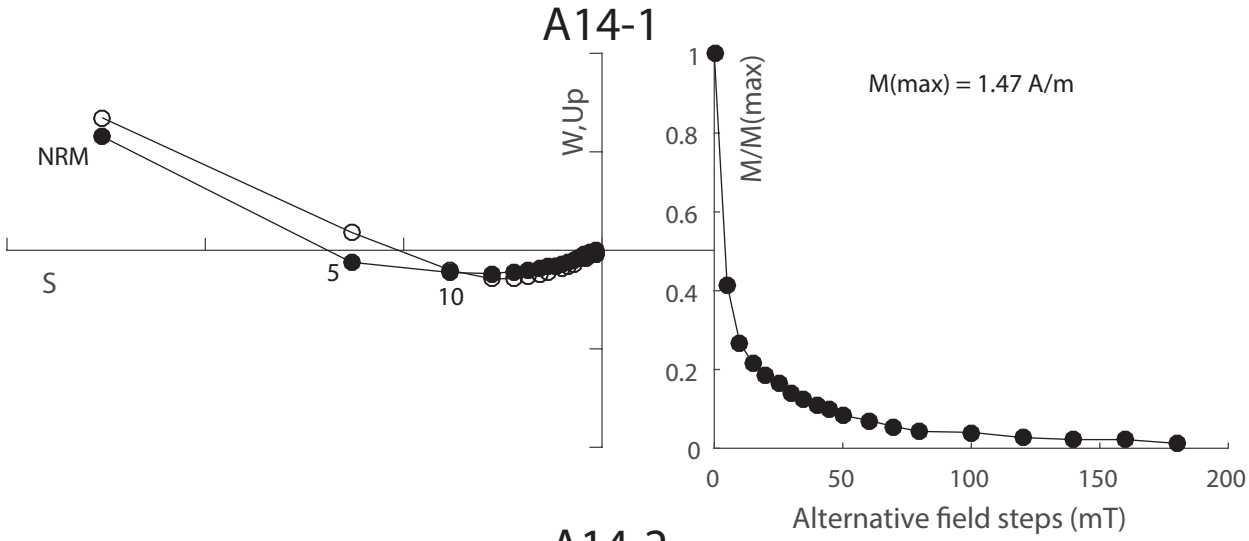

A12-2
M(max) = 4.66 A/m
W,Up
S
NRM 25 30 35 40 45
M/M(max)
0 0.2 0.4 0.6 0.8 1
0 50 100 150 200
Alternative field steps (mT)

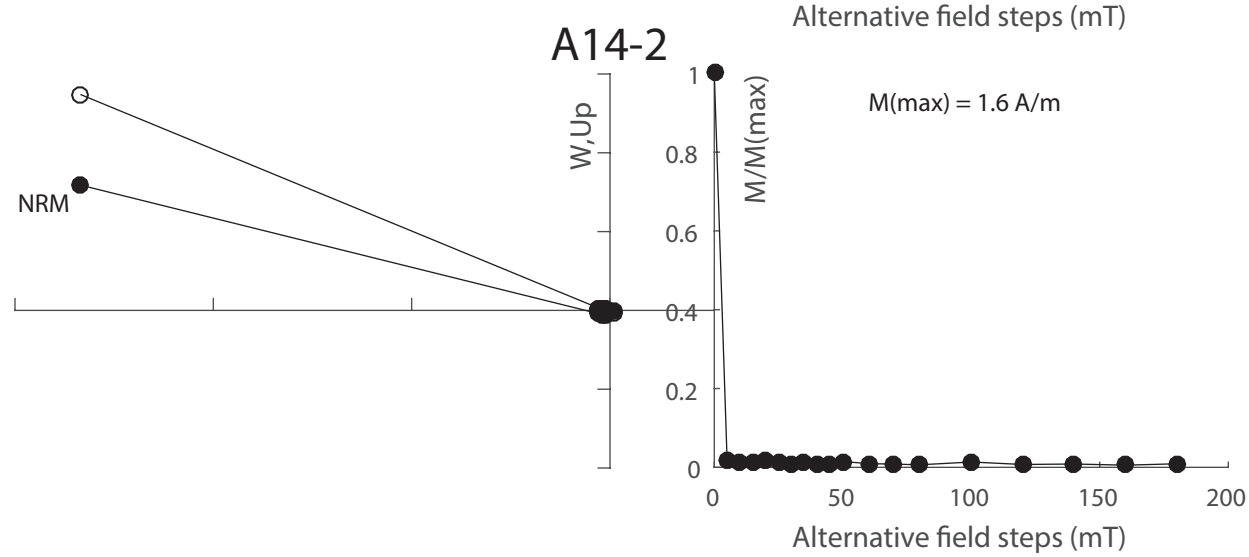

A12-3
M(max) = 6.8 A/m
W,Up
S
NRM 15 20 25 30 35 40 45 50 60
M/M(max)
0 0.2 0.4 0.6 0.8 1
0 50 100 150 200
Alternative field steps (mT)

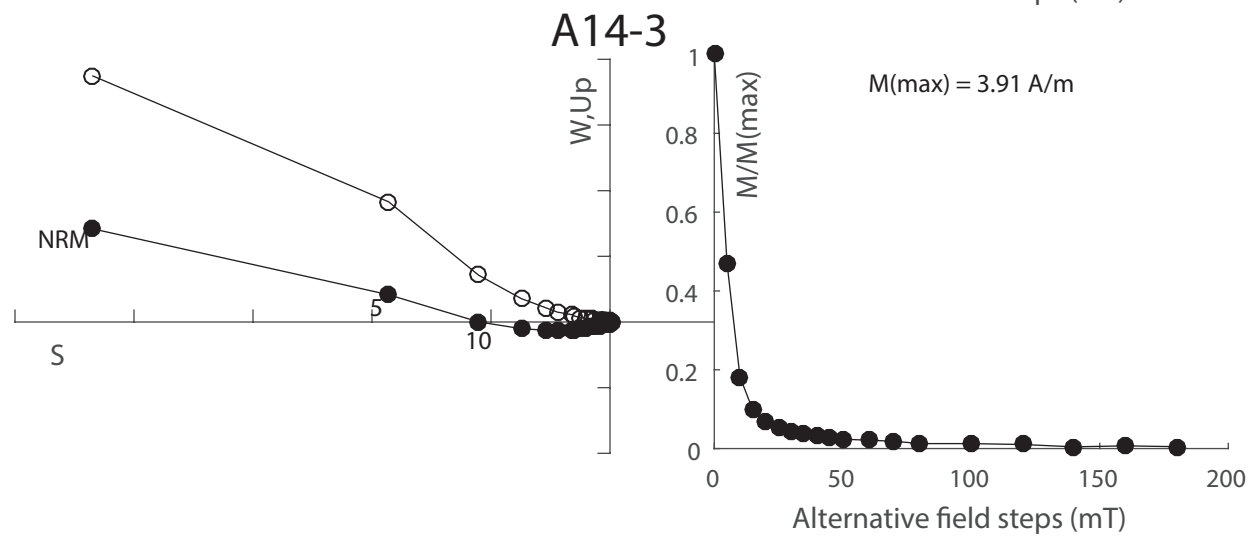

A13-1
W,Up
S
NRM
10
15
20
25
30
5
M(max) = 5.78 A/m
1
0.8
0.4
0.2
0
50
100
150
200
Alternative field steps (mT)

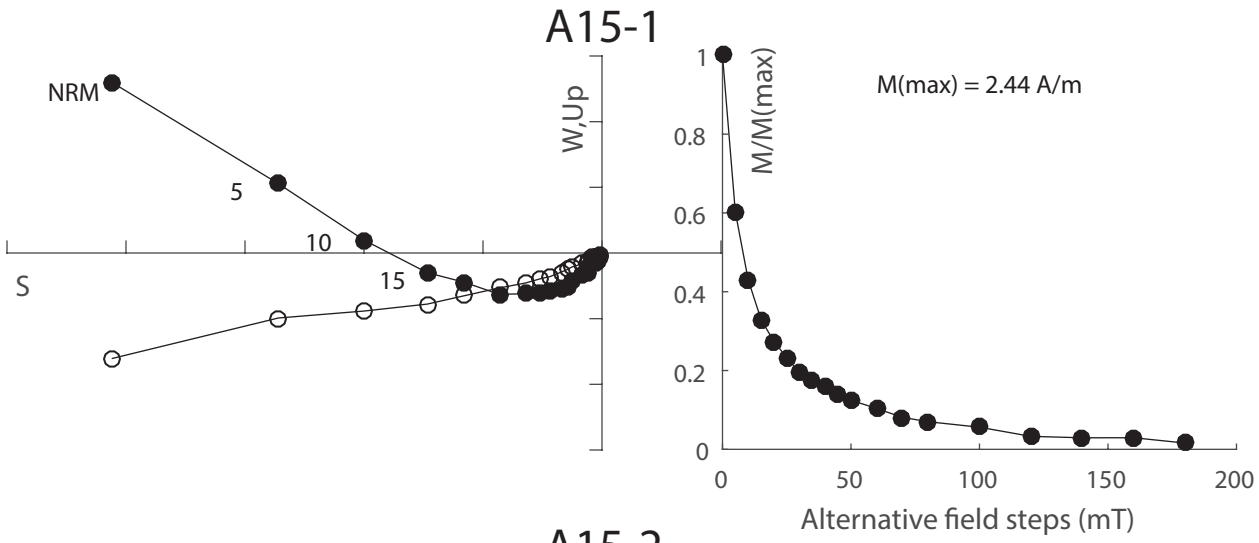

A13-2
W,Up
NRM
S
5
10
M(max) = 44.7 A/m
M/M(max)
1
0.8
0.6
0.4
0.2
0
50
100
150
200
Alternative field steps (mT)

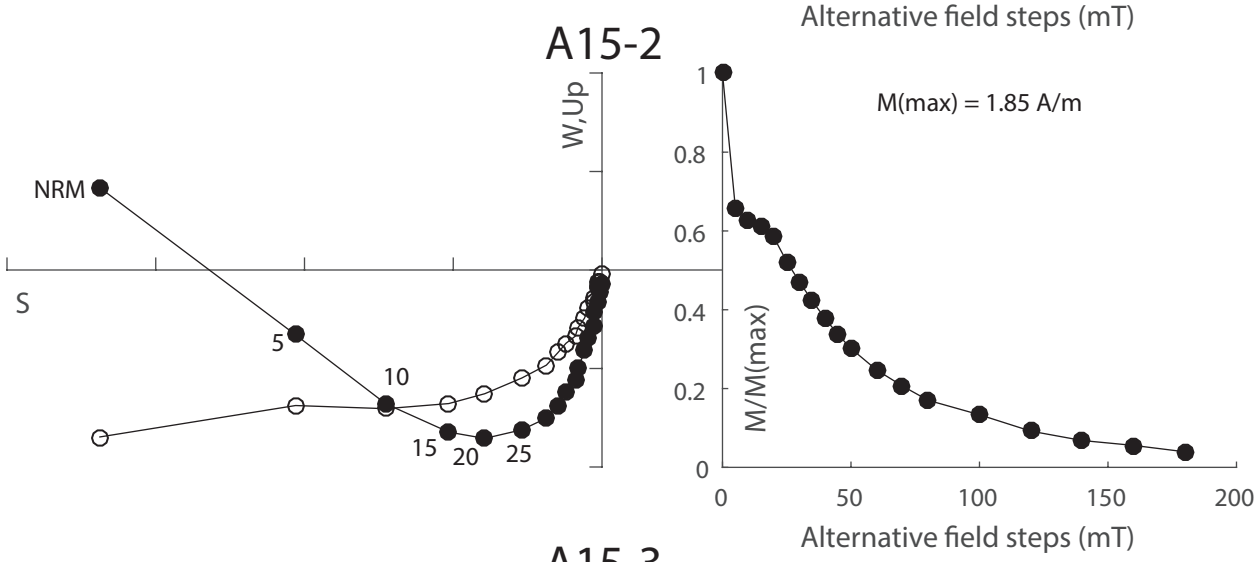

A13-3
W,Up
S
NRM
15
20
25
30
35
M(max) = 10.1 A/m
M/M(max)
1
0.8
0.6
0.4
0.2
0
50
100
150
200
Alternative field steps (mT)

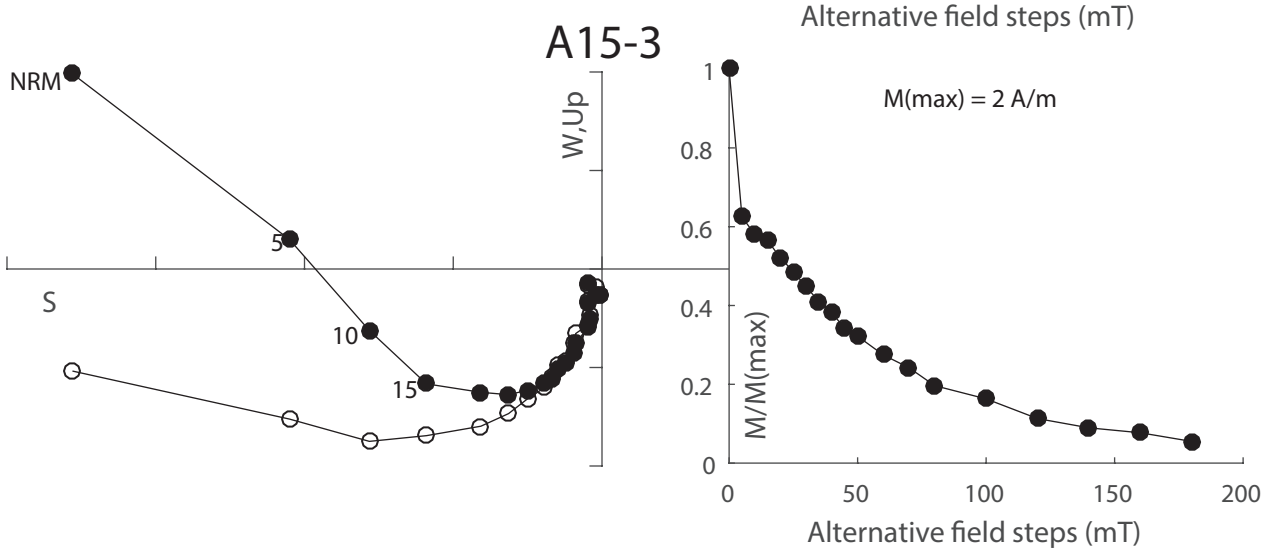

A14-1
NRM
S
5
10
W,Up
M/M(max)
M(max) = 1.47 A/m
1
0.8
0.6
0.4
0.2
0
0
50
100
150
200
Alternative field steps (mT)

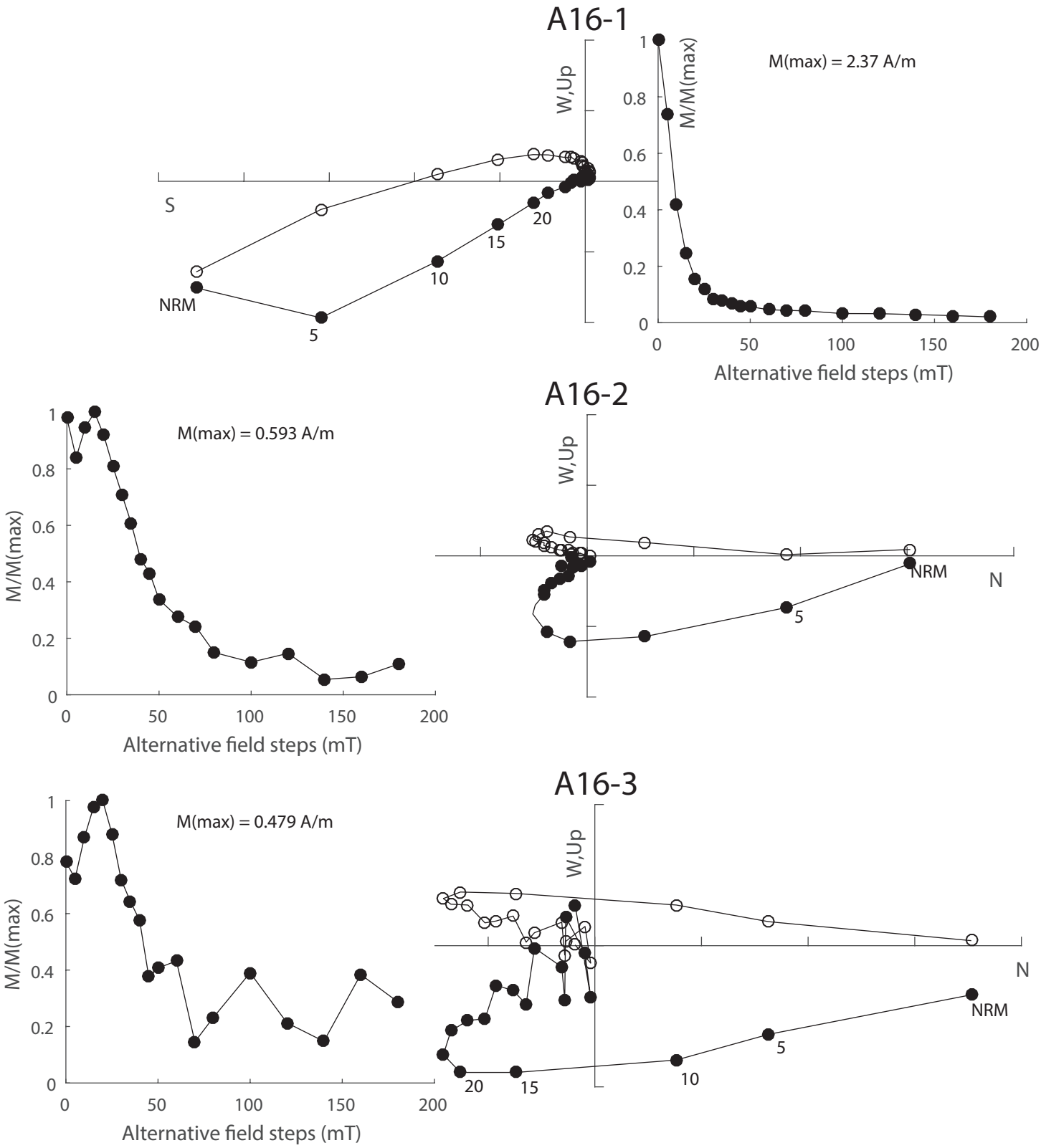

A14-2
NRM
W,Up
M/M(max)
M(max) = 1.6 A/m
1
0.8
0.6
0.4
0.2
0
0
50
100
150
200
Alternative field steps (mT)

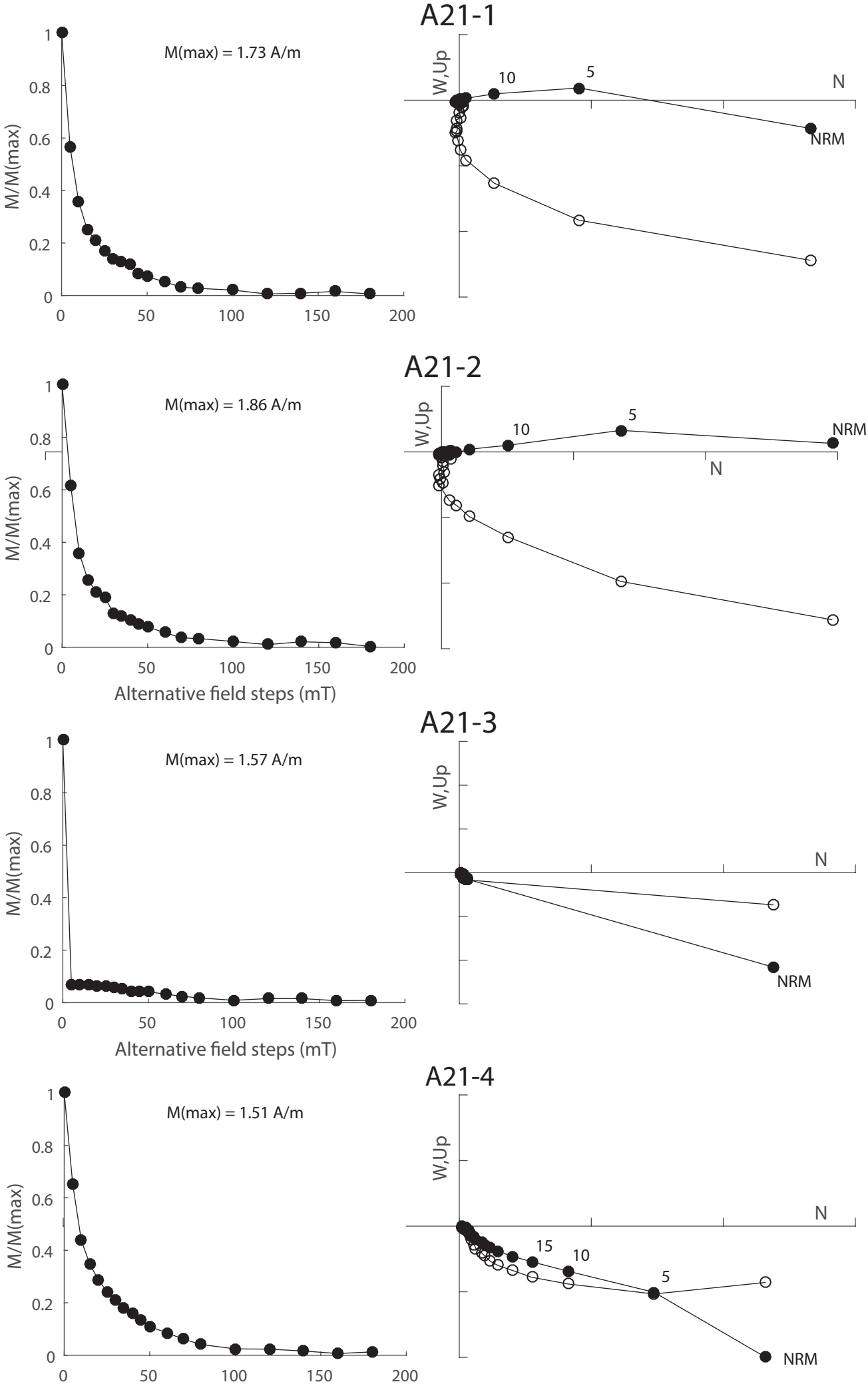

A14-3
NRM
S
5
10
W,Up
M/M(max)
M(max) = 3.91 A/m
1
0.8
0.6
0.4
0.2
0
0
50
100
150
200
Alternative field steps (mT)

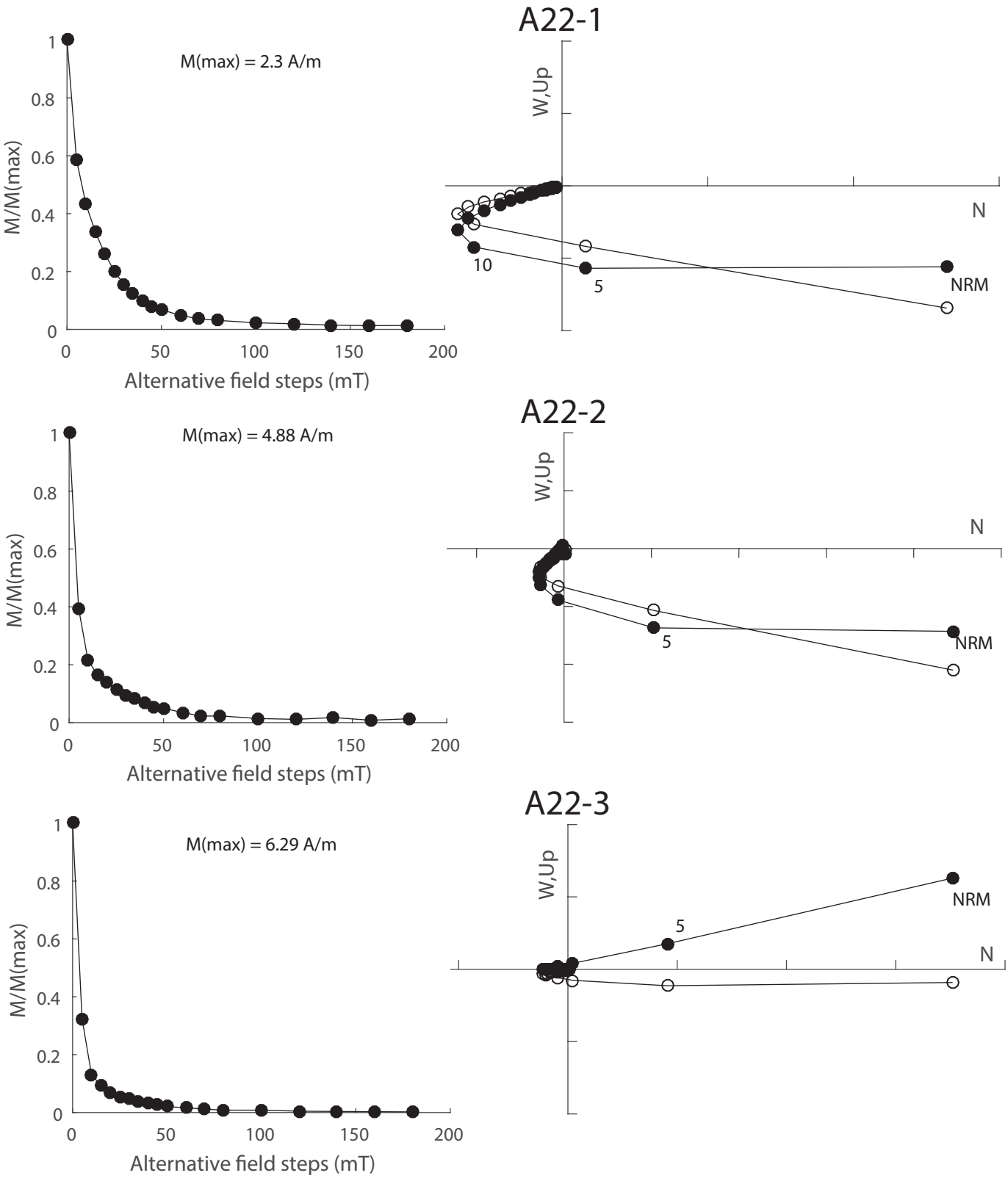

A15-1
NRM
5
10
15
S
W,Up
M/M(max)
M(max) = 2.44 A/m
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

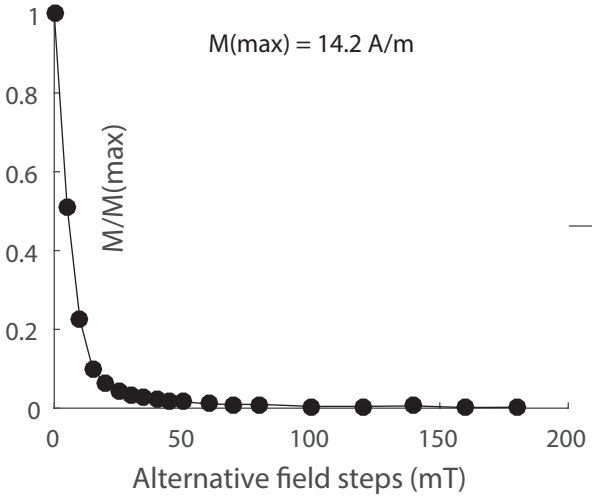

A15-2
NRM
5
10
15
20
25
S
W,Up
M/M(max)
M(max) = 1.85 A/m
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

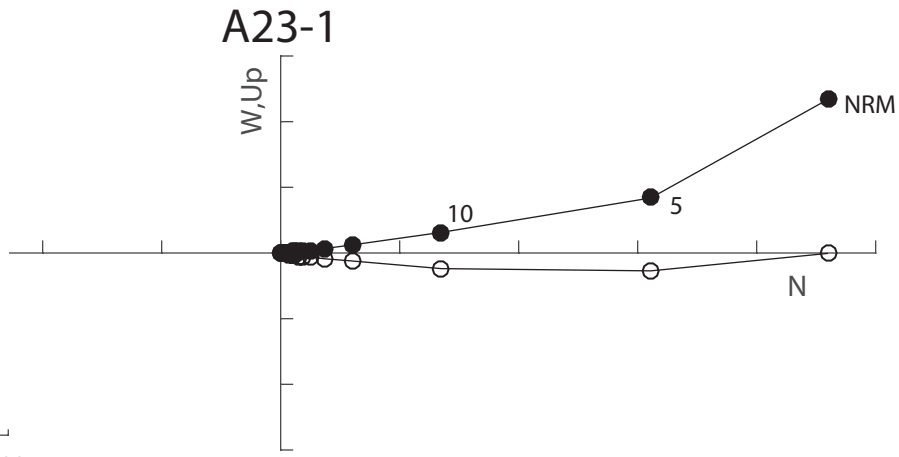

A15-3
NRM
5
10
15
S
W,Up
M/M(max)
M(max) = 2 A/m
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

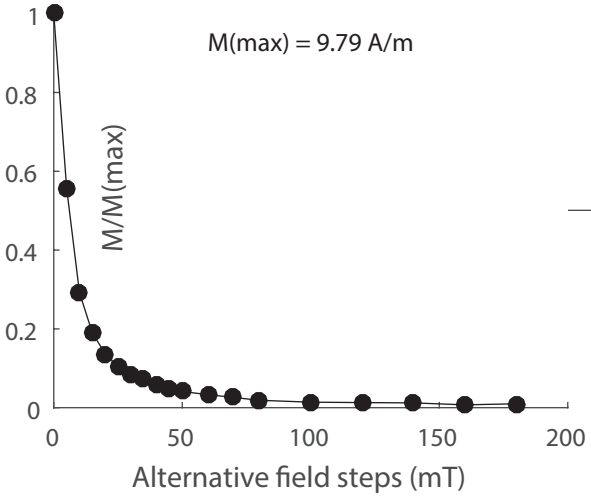

A16-1
W,Up
S
NRM
5
10
15
20
M/M(max)
M(max) = 2.37 A/m
Alternative field steps (mT)
A16-2
M(max) = 0.593 A/m
M/M(max)
W,Up
NRM
N
5
Alternative field steps (mT)
A16-3
M(max) = 0.479 A/m
M/M(max)
W,Up
N
NRM
5
10
15
20
Alternative field steps (mT)

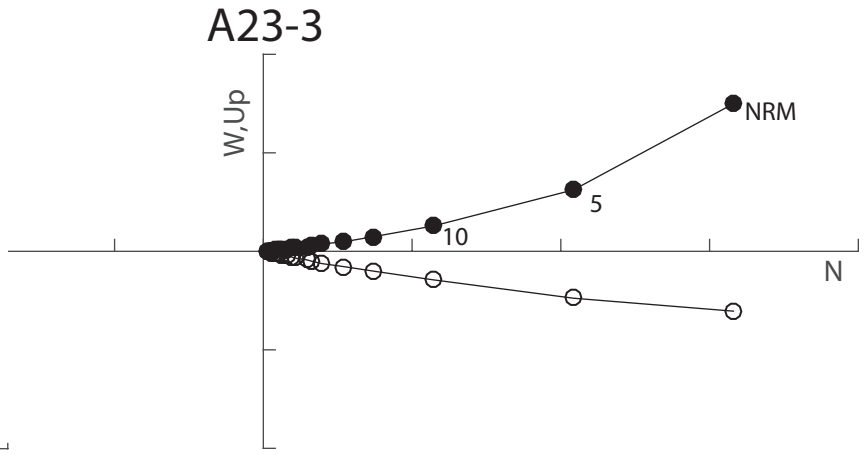

A21-1
M(max) = 1.73 A/m
M/M(max)
W,Up
N
NRM
10
5
A21-2
M(max) = 1.86 A/m
M/M(max)
W,Up
N
NRM
10
5
Alternative field steps (mT)
A21-3
M(max) = 1.57 A/m
M/M(max)
W,Up
N
NRM
Alternative field steps (mT)
A21-4
M(max) = 1.51 A/m
M/M(max)
W,Up
N
NRM
15
10
5

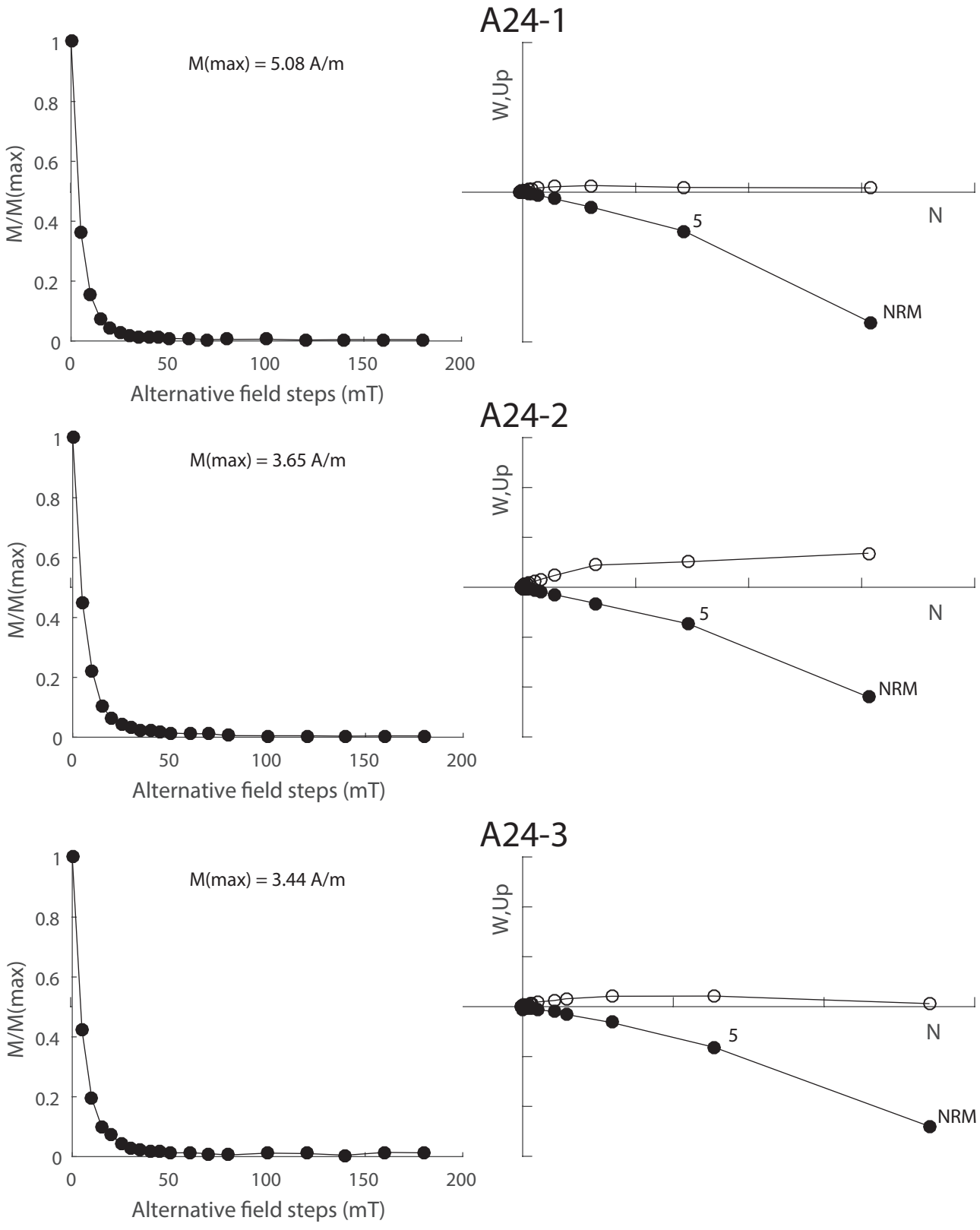

A22-1
M(max) = 2.3 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
10
5
NRM
A22-2
M(max) = 4.88 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
5
NRM
A22-3
M(max) = 6.29 A/m
M/M(max)
Alternative field steps (mT)
W,Up
NRM
5
N

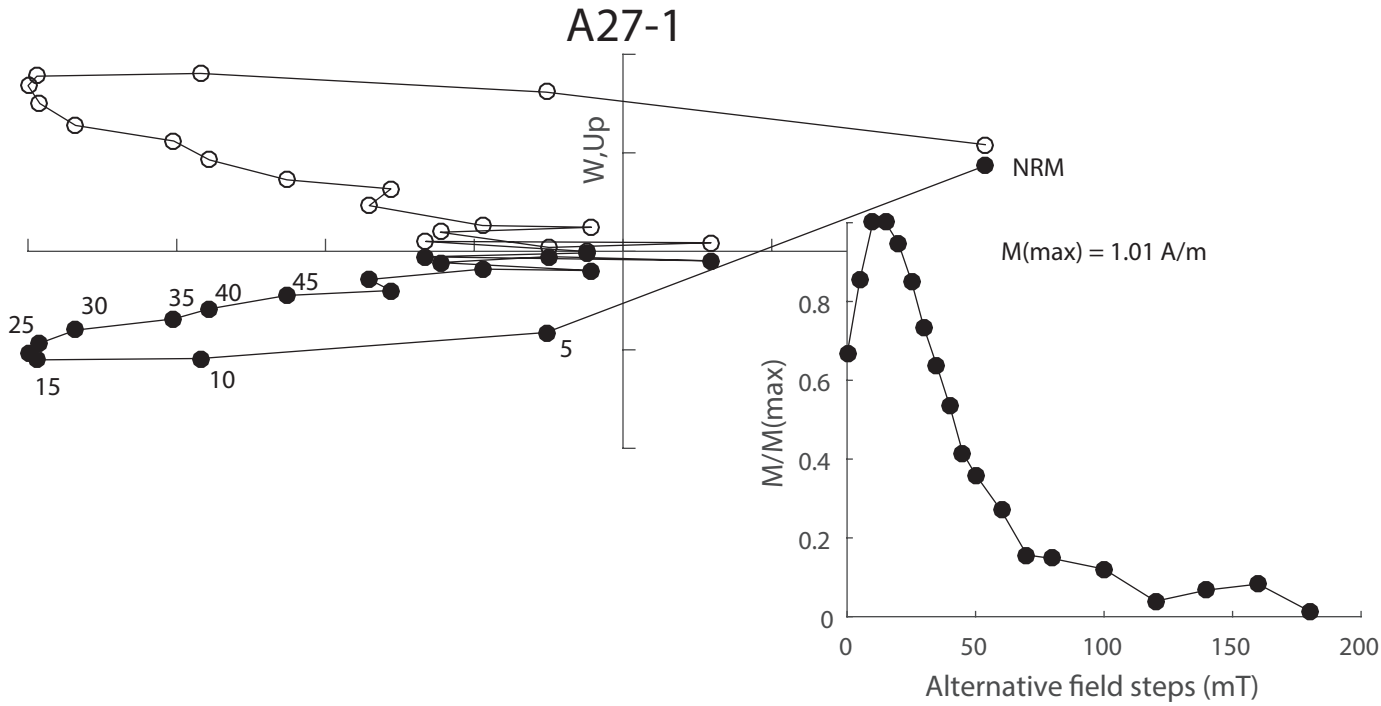

M(max) = 14.2 A/m
M/M(max)
Alternative field steps (mT)

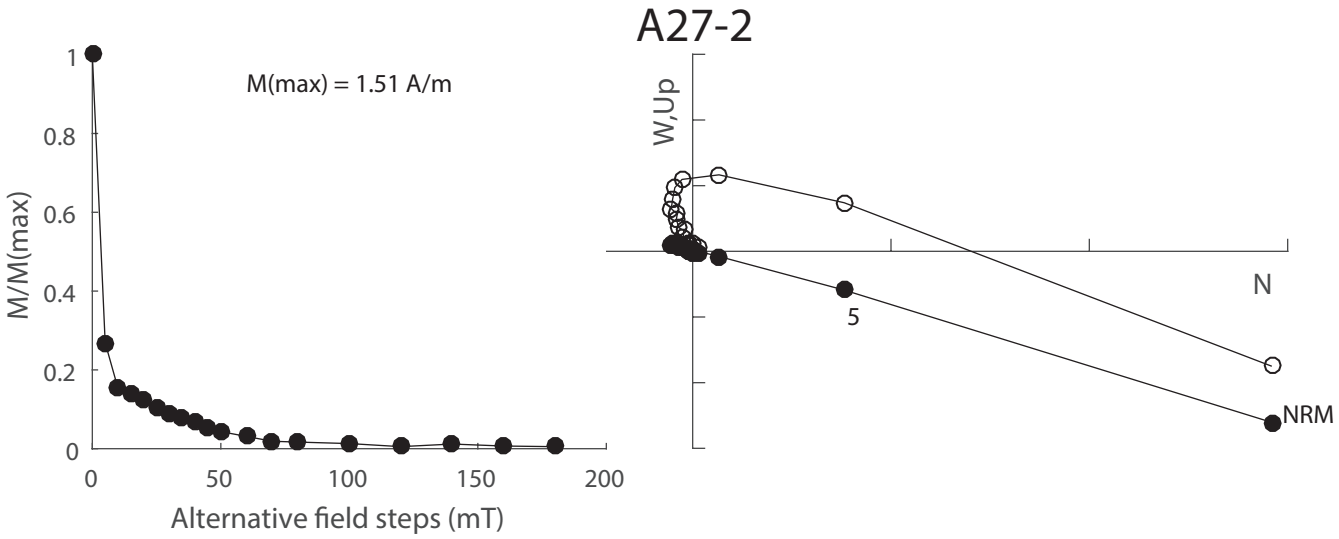

A23-1
W,Up
NRM
10
5
N

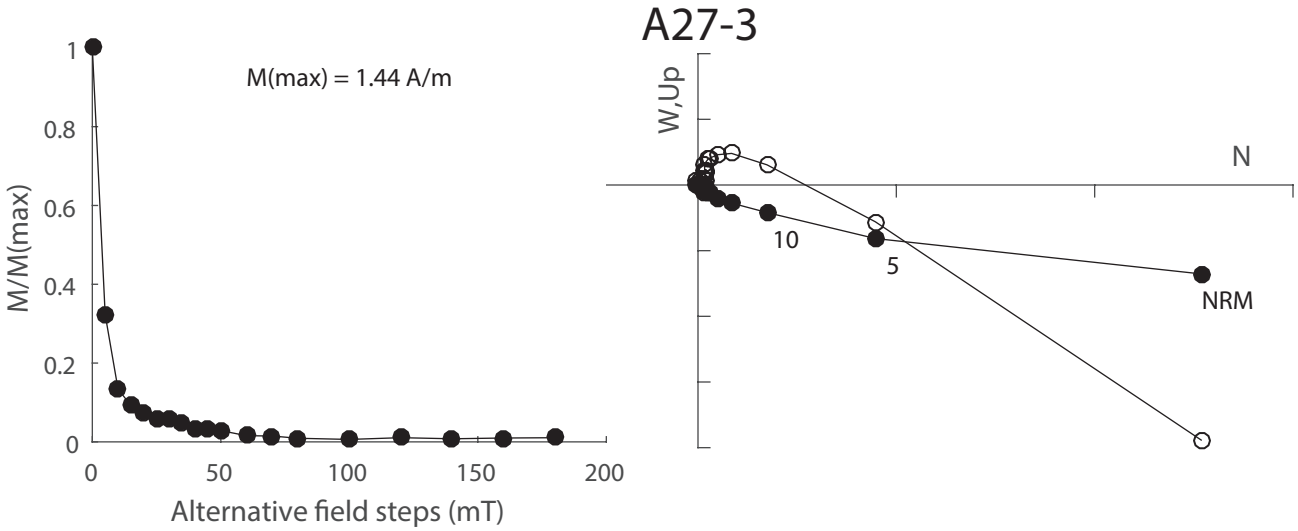

M(max) = 9.79 A/m
M/M(max)
Alternative field steps (mT)

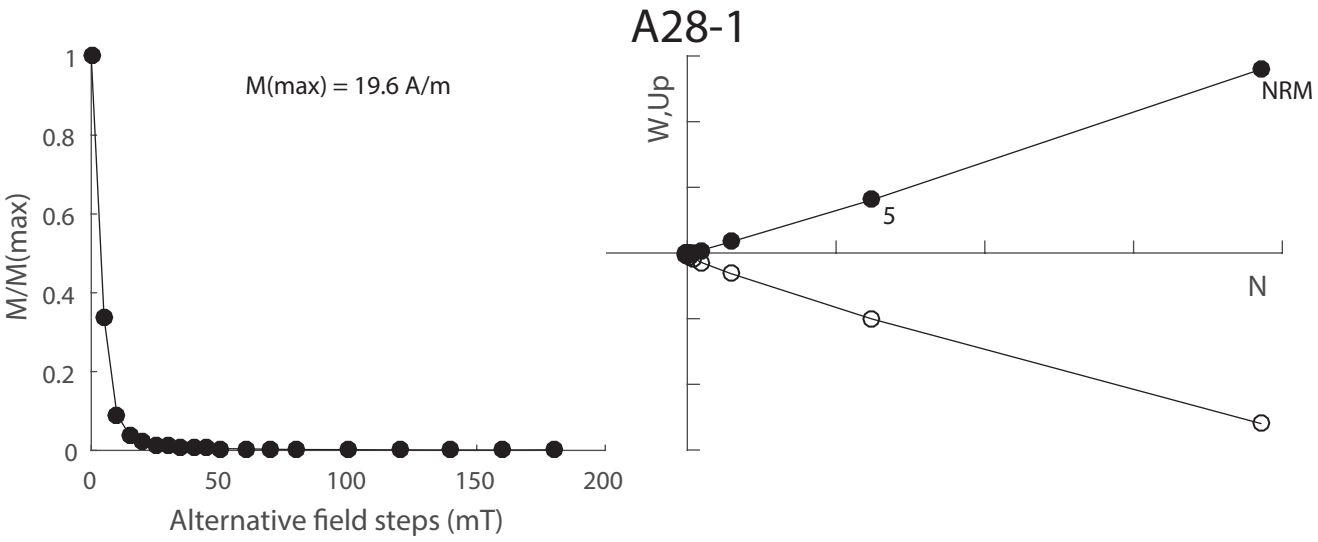

A23-3
W,Up
NRM
5
10
N

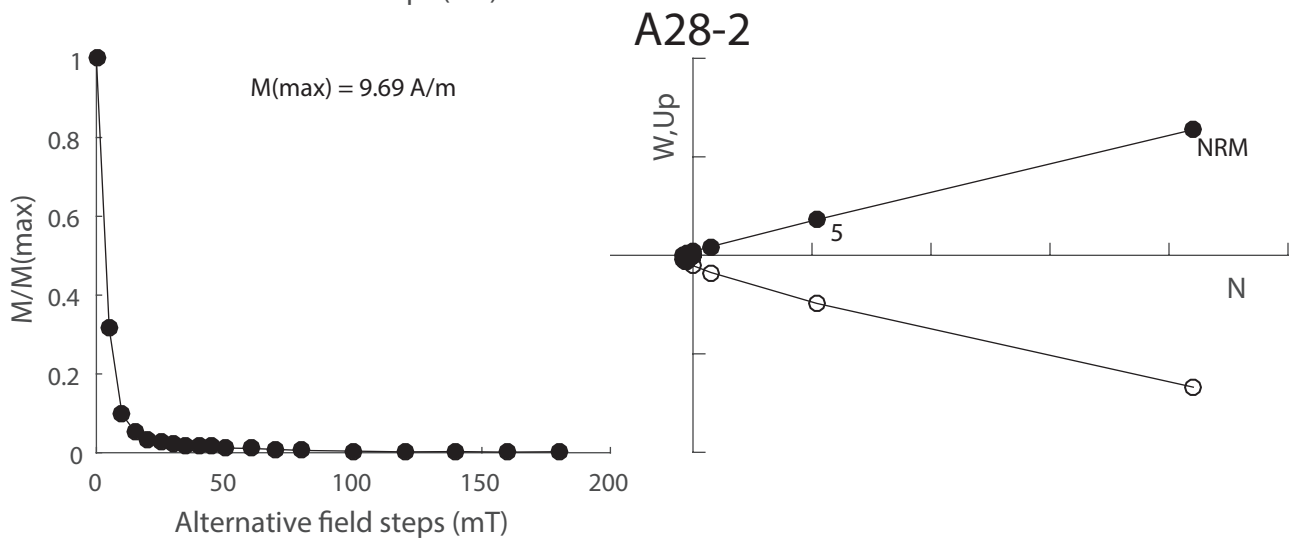

A24-1
M(max) = 5.08 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
5
NRM
A24-2
M(max) = 3.65 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
5
NRM
A24-3
M(max) = 3.44 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
5
NRM

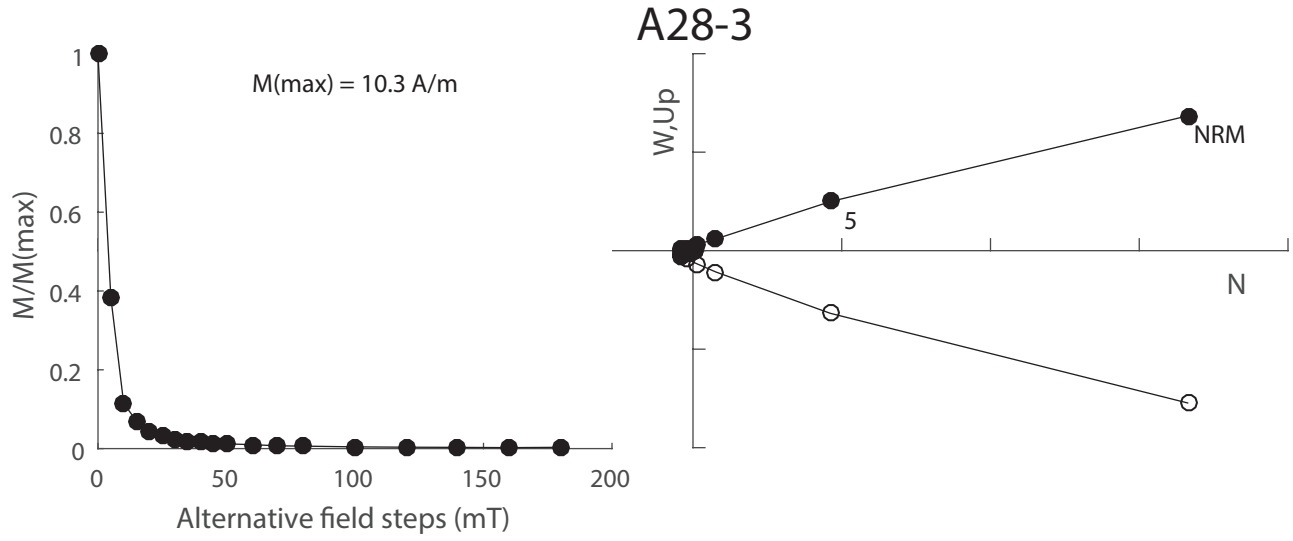

A27-1
W,Up
NRM
M(max) = 1.01 A/m
M/M(max)
Alternative field steps (mT)
25
30
35
40
45
5
10
15

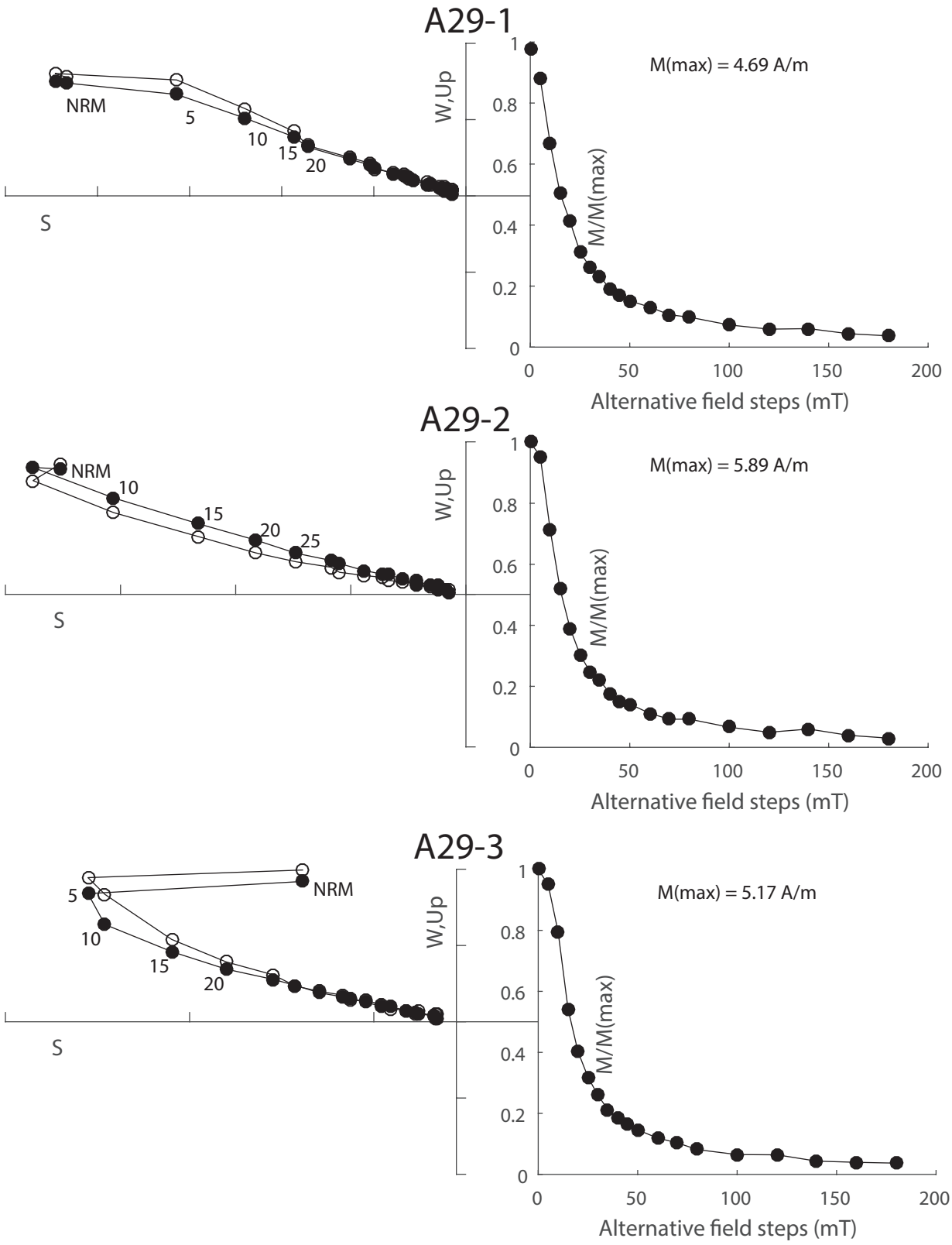

A27-2
M(max) = 1.51 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
5
NRM

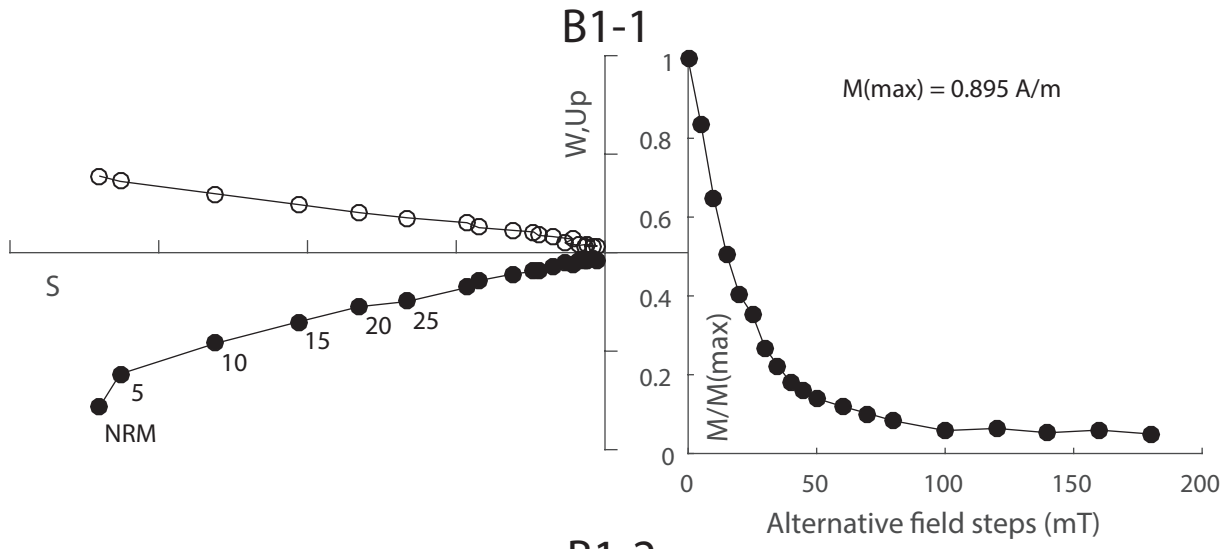

A27-3
M(max) = 1.44 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
10
5
NRM

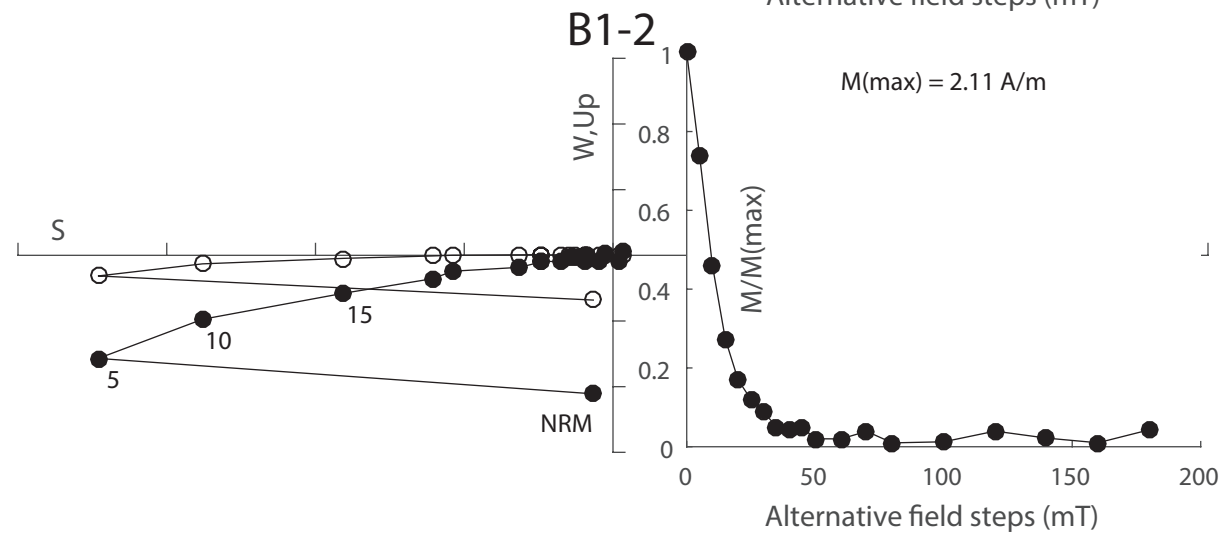

A28-1
M(max) = 19.6 A/m
M/M(max)
Alternative field steps (mT)
W,Up
NRM
5
N

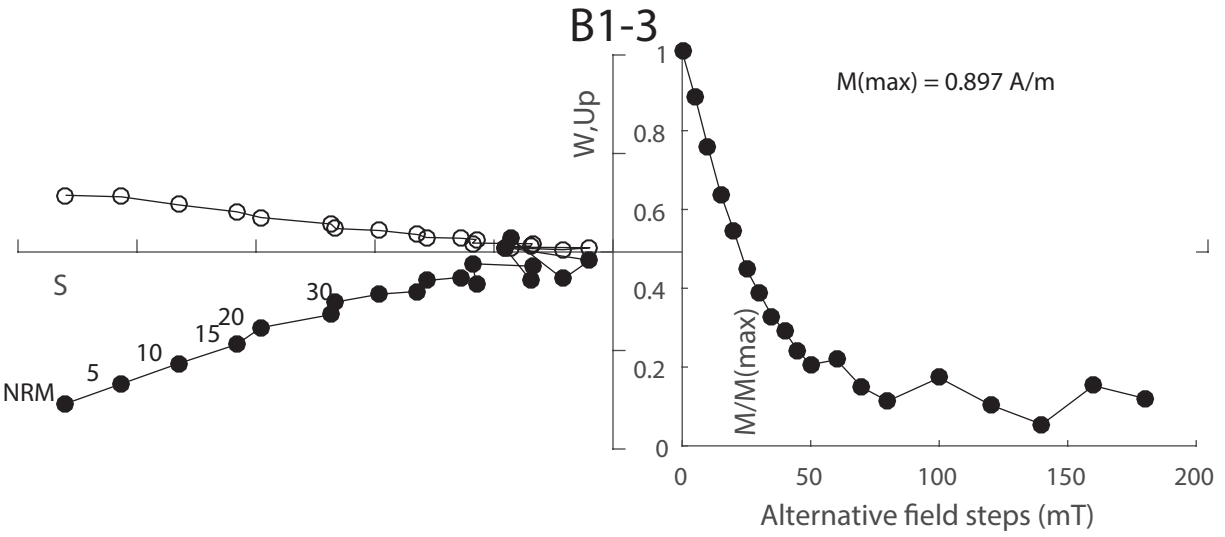

A28-2
M(max) = 9.69 A/m
M/M(max)
Alternative field steps (mT)
W,Up
NRM
5
N

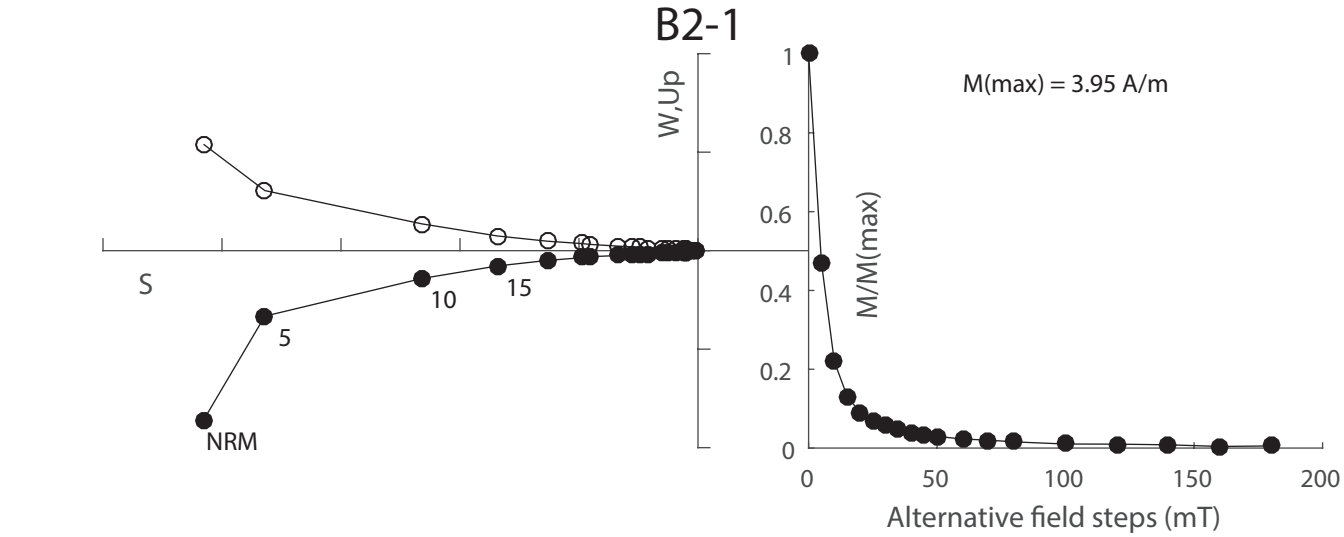

A28-3
M(max) = 10.3 A/m
M/M(max)
Alternative field steps (mT)
W,Up
NRM
5
N

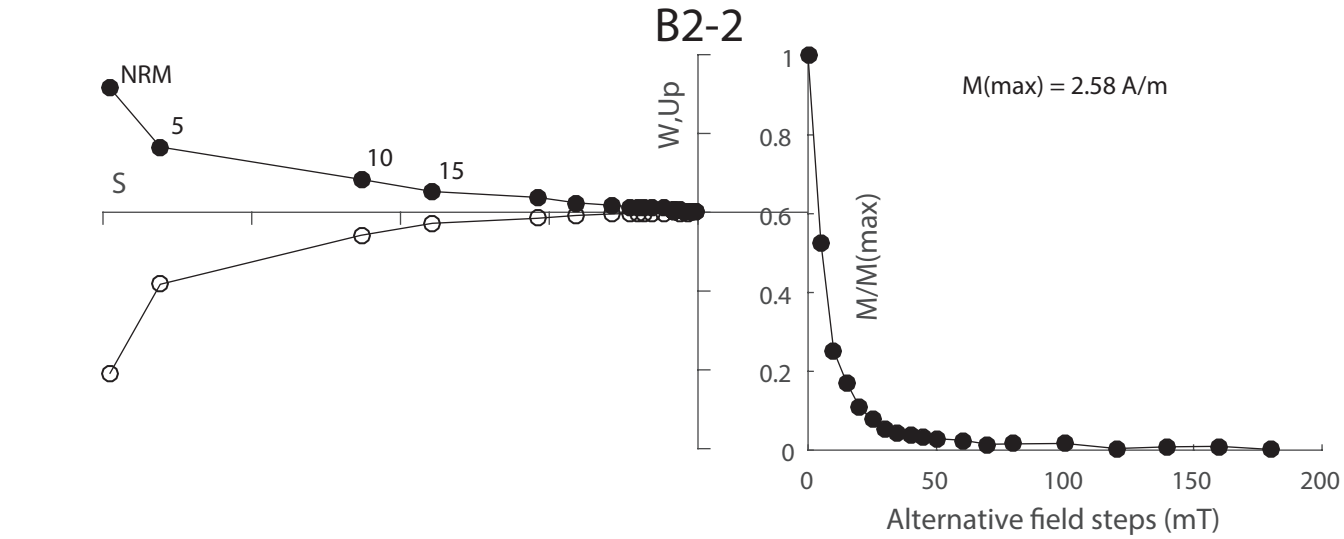

A29-1
NRM
5
10
15
20
S
W,Up
M/M(max)
M(max) = 4.69 A/m
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)
A29-2
NRM
10
15
20
25
S
W,Up
M/M(max)
M(max) = 5.89 A/m
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)
A29-3
5
NRM
10
15
20
S
W,Up
M/M(max)
M(max) = 5.17 A/m
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

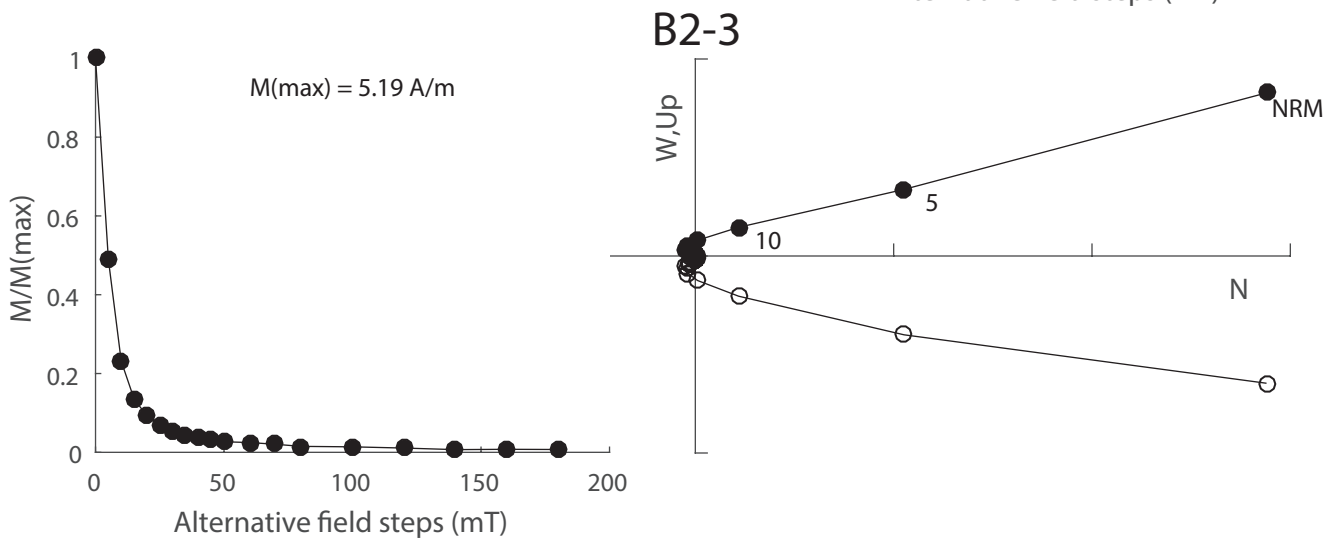

B1-1
M(max) = 0.895 A/m
W,Up
M/M(max)
S
NRM
5
10
15
20
25
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

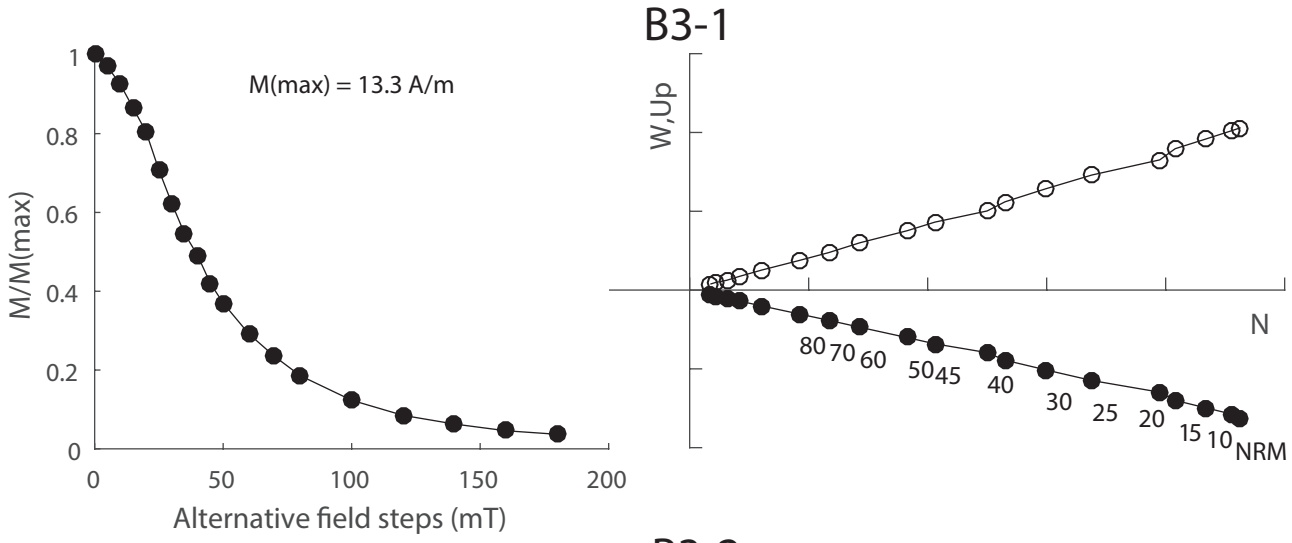

B1-2
M(max) = 2.11 A/m
W,Up
M/M(max)
S
NRM
5
10
15
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

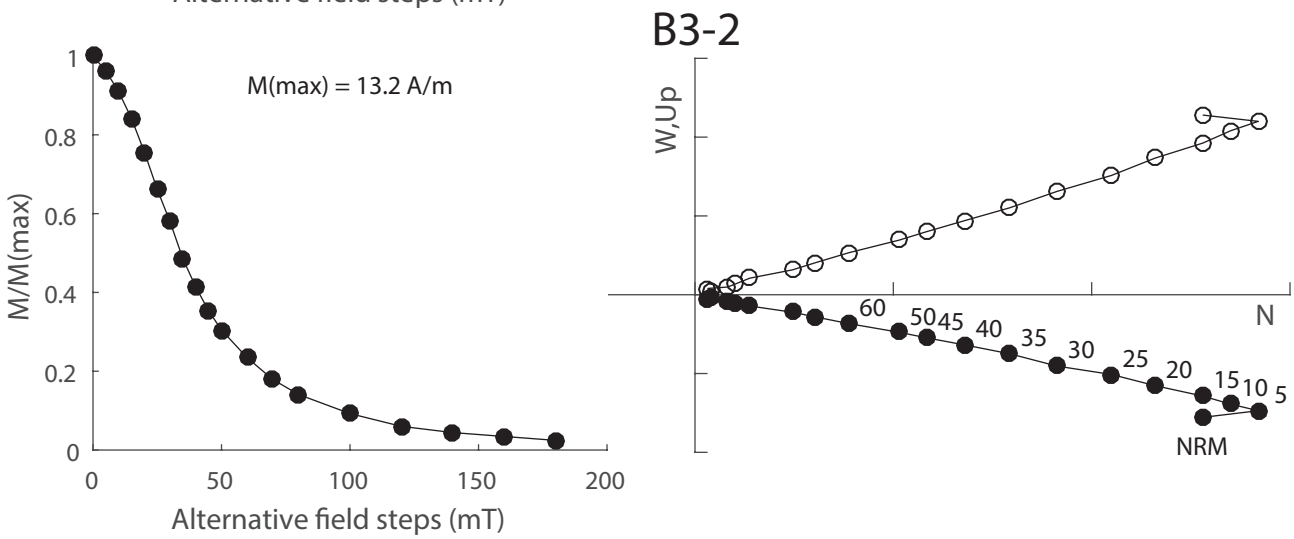

B1-3
M(max) = 0.897 A/m
W,Up
M/M(max)
S
NRM
5
10
15
20
30
0
0.2
0.4
0.6
0.8
1
0
50
100
150
200
Alternative field steps (mT)

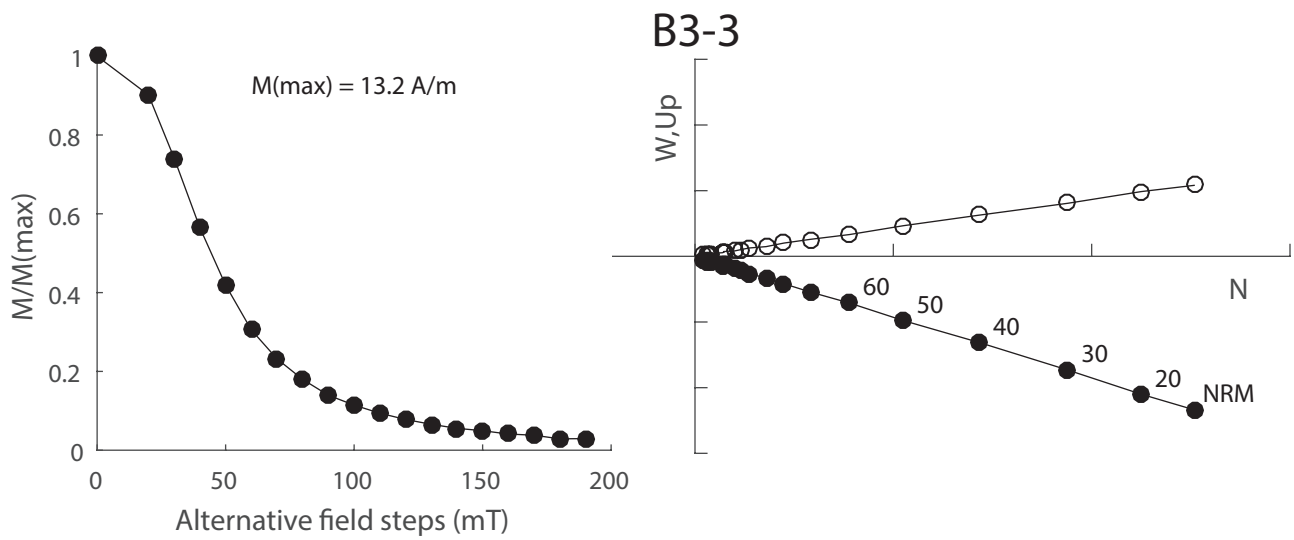

B2-1
W,Up
S
NRM
5
10
15
M(max) = 3.95 A/m
M/M(max)
Alternative field steps (mT)

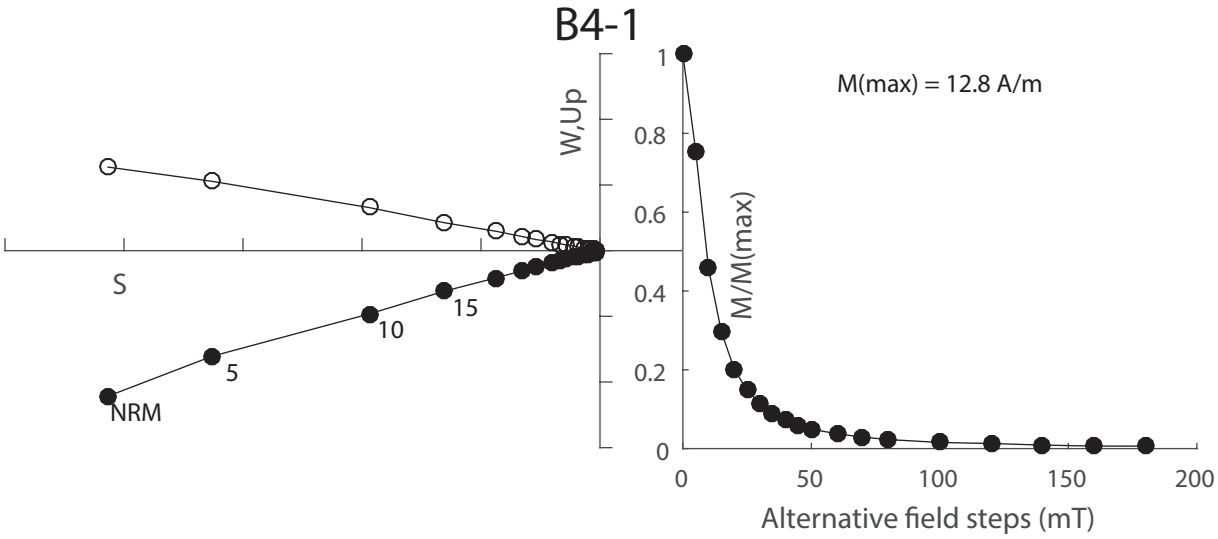

B2-2
NRM
5
10
15
S
W,Up
M(max) = 2.58 A/m
M/M(max)
Alternative field steps (mT)

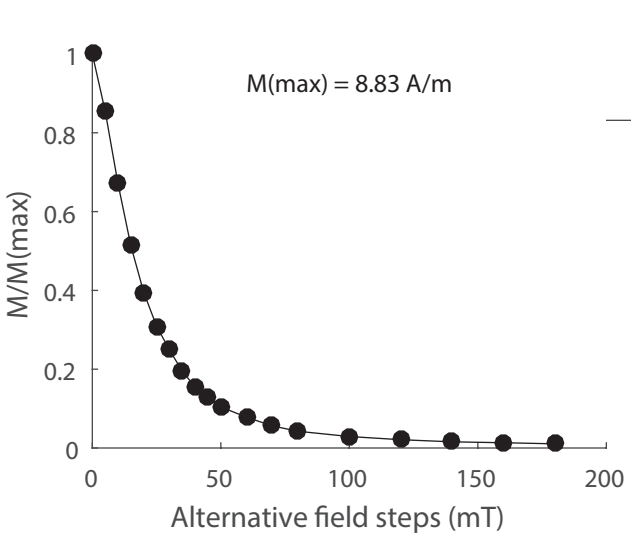

B2-3
M(max) = 5.19 A/m
M/M(max)
Alternative field steps (mT)
W,Up
NRM
5
10
N

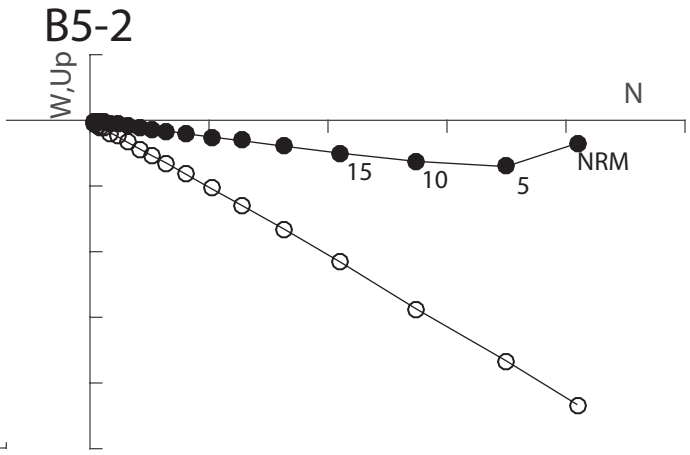

B3-1
M(max) = 13.3 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
80 70 60 50 45 40 30 25 20 15 10 NRM

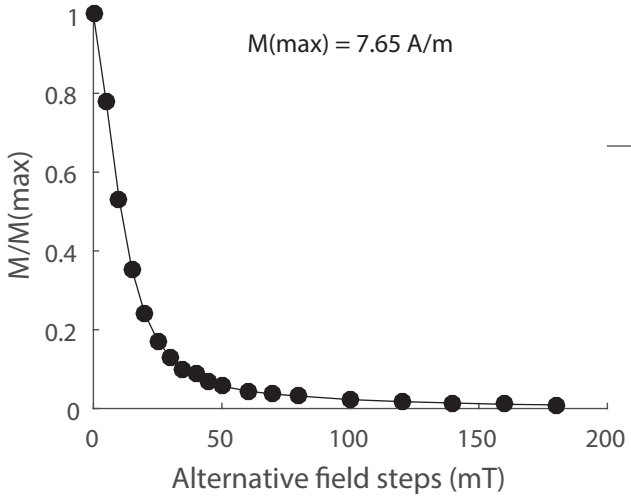

B3-2
M(max) = 13.2 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
60 50 45 40 35 30 25 20 15 10 5 NRM


B3-3
M(max) = 13.2 A/m
M/M(max)
Alternative field steps (mT)
W,Up
N
60 50 40 30 20 NRM


B4-1
M(max) = 12.8 A/m
W,Up
M/M(max)
S
NRM
5
10
15
Alternative field steps (mT)


M(max) = 8.83 A/m
M/M(max)
Alternative field steps (mT)


B5-2
W,Up
N
NRM
5
10
15


M(max) = 7.65 A/m
M/M(max)
Alternative field steps (mT)

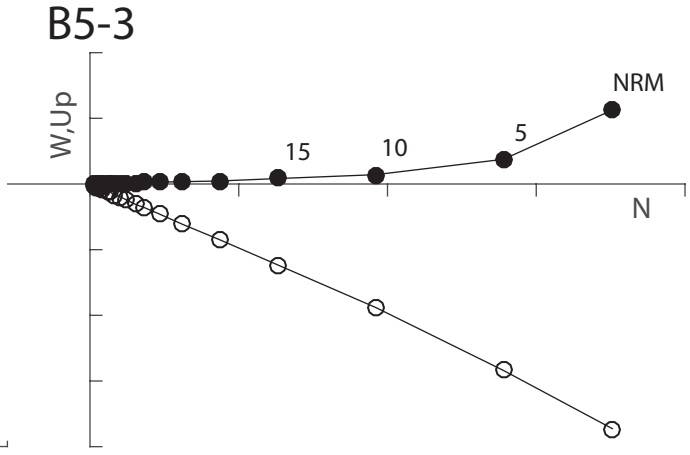

B5-3
W,Up
NRM
5
10
15
N

Table S14: Paleomagnetic site means for the Tahitian lava flows.

Flow	Site		n	N	Direction				VGP	
	Latitude	Longitude	Samp.	Used	Dec	Inc	α_{95}	ƙ	Lat	Long
A4	-17.62818	-149.60110	3	3	186.9	-11.1	6.9	320.9	-65.8	47.4
A8	-17.6289	-149.60082	1	1	177.8	7.1			-75.8	21.4
A9	-17.62908	-149.60112	3	3	170.4	11.9	6.3	381.5	-75.1	350.3
A10	-17.62905	-149.60107	4	4	173. 7	10.3	9.3	99.1	-76.1	3.2
A11	-17.62918	-149.60115	3	3	171.5	6.1	4.7	680.0	-73.2	359.6
A12	-17.62927	-149.60128	3	3	179.8	37.6	4.4	784.3	-86.5	218.1
A13	-17.62935	-149.60138	3	3	168.7	17.5	19.5	41.0	-76.0	337.1
A14	-17.62950	-149.60148	3	3	182.1	-30.2	35.4	13.2	-56.1	34.0
A15	-17.62985	-149.60158	3	3	164.8	-2.4	7.3	390.1	-66.9	348.5
A16	-17.62997	-149.60160	3	3	153.6	11.6	6.8	446.8	-61.7	321.7
A21	-17.62977	-149.60100	4	4	27.8	28.9	10.4		47.1	251.7
A22	-17.62968	-149.60078	3	3	36.6	45.0	5.5	496.6	33.1	250.3
A23	-17.62968	-149.60078	2	2	10.3	-14.5	26.1	93.7	75.7	256.1
A24	-17.62958	-149.59982	3	3	80.1	-65.2	9.9	156.0	19.5	345.2
A27	-17.62930	-149.59883	4	4	199.6	-0.3	12.2	103.2	-63.8	79.8
A28	-17.62917	-149.59922	3	3	270.2	43.9	26.1	23.3	-7.4	145.1
A29	-17.62902	-149.59913	3	3	353.9	-8.2	2.4	2592.3	74.9	182.6
B1	-17.62902	-149.59953	3	3	32.2	16.1	42.1	12.8	49.0	264.0
B2	-17.62900	-149.59953	3	3	17.5	9.1	16.2	58.8	61.9	249.9
B3	-17.62897	-149.59958	3	3	7.4	-17.8	5.1	593.7	78.9	251.7
B4	-17.62897	-149.59958	2	1	346.6	-20.5			75.2	147.0
B5	-17.62897	-149.59958	2	2	7.8	-22.5	6.4	1510.4	80.4	263.4

Flow: Same flows sampled and names used as in Mochizuki et al. (2011).
n Samp/N used: number of samples measured/number used to determine the flow mean direction and virtual magnetic pole (VGP).
Direction Dec/Inc/α_{95}/k and VGP Lat/Long = declination/inclination/95% confidence limit/precision parameter and virtual geomagnetic pole north latitude/east longitude.

Table S15: Paleomagnetic results for all samples in this study.

Sample & Flow	CODE	Step Range	N	Dec	Inc	α_{95}	k	NRM [A/m]	VGP Lat	VGP Long	A_{95}
A4-1	DirOPCA	H015-H180	16	191.5	-9.9	1.0		2.8			
A4-2	DirOPCA	H015-H180	16	184.6	-13.7	1.0		1.8			
A4-3	DirOPCA	H015-H180	16	184.7	-9.5	0.9		2.5			
A4		**flow mean**	**3**	**186.9**	**-11.1**	**6.9**	**320.9**		**-65.8**	**47.4**	**5.0**
A8-1	DirOPCA	H005-H180	1	177.8	7.1	0.5		5.4			
A8-1		**flow mean**	**1**	**177.8**	**7.1**			**5.4**	**-75.8**	**21.4**	
A9-2	DirOPCA	H010-H180	17	174.2	10.6	0.6		11.2			
A9-3	DirOPCA	H010-H180	17	169.8	10.7	0.2		6.4			
A9-4	DirOPCA	H010-H180	17	167.1	14.5	0.4		10.3			
A9		**flow mean**	**3**	**170.4**	**11.9**	**6.3**	**381.5**		**-75.1**	**350.3**	**4.6**
A10-2	DirOPCA	H010-H180	17	168.0	12.5	0.6		13.3			
A10-3	DirOPCA	H010-H180	17	171.4	12.5	0.4		14.8			
A10-4	DirOPCA	H015-H100	12	183.6	12.7	0.7		9.8			
A10-1	DirOPCA	H010-H180	17	172.0	3.2	0.8		8.7			
A10		**flow mean**	**4**	**173. 7**	**10.3**	**9.3**	**99.1**		**-76.1**	**3.2**	**6.7**
A11-2	DirOPCA	H005-H180	18	170.6	7.6	0.5		12.2			
A11-1	DirOPCA	H005-H180	18	173.7	3.3	0.3		11.7			
A11-3	DirOPCA	H015-H180	15	170.1	7.4	1.9		11.9			
A11		**flow mean**	**3**	**171.5**	**6.1**	**4.7**	**680.0**		**-73.2**	**359.6**	**3.3**
A12-1	DirOPCA	H010-H180	17	177.6	34.8	0.3		15.3			
A12-2	DirOPCA	H010-H180	17	180.8	38.7	0.5		4.6			
A12-3	DirOPCA	H010-H180	17	181.1	39.3	1.3		6.8			
A12		**flow mean**	**3**	**179.8**	**37.6**	**4.4**	**784.3**		**-86.5**	**218.1**	**4.0**
A13-1	DirOPCA	H015-H100	12	178.2	19.2	1.1		3.9			
A13-2	DirOPCA	H015-H180	16	155.4	22.2	3.4		44.7			
A13-3	DirOPCA	H010-H180	17	171.9	10.5	0.8		9.4			

A13		**flow mean**	**3**	**168.7**	**17.5**	**19.5**	**41.0**		**-76.0**	**337.1**	**14.5**
A14-1	DirOPCA	H020-H120	12	174.0	-27.9	3.8		1.5			
A14-2	DirOPCA	H020-H100	11	196.8	-11.9	17.4		1.6			
A14-3	DirOPCA	H020-H100	11	171.0	-49.2	11.0		3.9			
A14		**flow mean**	**3**	**182.1**	**-30.2**	**35.4**	**13.2**		**-56.1**	**34.0**	**29.3**
A15-2	DirOPCA	H030-H140	11	165.7	-4.8	2.4		1.9			
A15-3	DirOPCA	H030-H140	11	162.5	0.9	3.2		2.0			
A15-1	GCn PCA	NRM-H030	7	78.5	35.9	2.8		2.4			
A15		**flow mean**	**3**	**164.8**	**-2.4**	**7.3**	**390.1**		**-66.9**	**348.5**	**5.2**
A16-2	*DirOPCA*	*H030-H100*	*9*	*157.0*	*12.5*	*3.0*		*0.6*			
A16-3	*DirOPCA*	*H025-H060*	*7*	*150.6*	*10.5*	*7.1*		*0.4*			
A16-1	*GCn PCA*	*H015-H060*	*9*	*56.1*	*30.1*	*7.7*		*2.4*			
A16			***3***	***153.6***	***11.6***	***6.8***	***446.8***		***-61.7***	***321.7***	***4.9***
A21-1	*DirOPCA*	*H015-H180*	*16*	*37.0*	*37.6*	*3.4*		*1.7*			
A21-2	*DirOPCA*	*H015-H120*	*13*	*24.0*	*19.6*	*6.0*		*1.9*			
A21-3	*DirOPCA*	*H010-H120*	*14*	*27.8*	*30.2*	*3.9*		*1.6*			
A21-4	*DirOPCA*	*H015-H080*	*11*	*23.9*	*27.6*	*4.6*		*1.5*			
A21		***flow mean***	***4***	***27.8***	***28.9***	***10.4***	***79.0***		***47.1***	***251.7***	***8.5***
A22-1	DirOPCA	H020-H100	11	37.2	45.8	2.7		2.3			
A22-2	DirOPCA	H020-H060	8	39.1	47.5	3.3		4.9			
A22-3	DirOPCA	H025-H070	8	33.8	41.5	2.2		6.3			
A22		**flow mean**	**3**	**36.6**	**45.0**	**5.5**	**496.6**		**33.1**	**250.3**	**5.5**
A23-1	DirOPCA	H015-H100	12	15.9	-12.3	4.0		14.2			
A23-3	DirOPCA	H020-H100	12	4.5	-16.6	1.9		9.8			
A23		**flow mean**	**2**	**10.3**	**-14.5**	**26.1**	**93.7**		**75.7**	**256.1**	**19.1**
A24-1	DirOPCA	H020-H050	7	92.9	-62.1	8.5		5.1			
A24-2	DirOPCA	H020-H070	9	64.5	-66.8	7.4		3.7			
A24-3	DirOPCA	H025-H060	7	80.3	-65.3	8.6		3.4			
A24		**flow mean**	**3**	**80.1**	**-65.2**	**9.9**	**156.0**		**19.5**	**345.2**	**14.4**

A27-1	*DirOPCA*	*H020-H180*	*15*	*197.1*	*1.8*	*2.9*		*0.7*			
A27-2	*DirOPCA*	*H030-H180*	*13*	*205.4*	*-3.9*	*6.7*		*1.5*			
A27-3	*GCn PCA*	*NRM-H020*	*5*	*106.2*	*23.6*	*2.1*		*1.4*			
A27		***flow mean***	***3***	***199.6***	***-0.3***	***12.2***	***103.2***		***-63.8***	***79.8***	***8.6***
A28-1	*DirOPCA*	*H035-H100*	*8*	*284.6*	*28.5*	*8.6*		*19.6*			
A28-2	*DirOPCA*	*H030-H070*	*7*	*255.6*	*49.8*	*4.2*		*9.7*			
A28-3	*DirOPCA*	*H035-H100*	*8*	*265.1*	*51.1*	*4.1*		*10.3*			
A28		***flow mean***	***3***	***270.2***	***43.9***	***26.1***	***23.3***		***-7.4***	***145.1***	***25.8***
A29-1	*DirOPCA*	*H005-H120*	*15*	*353.9*	*-7.8*	*2.1*		*4.6*			
A29-2	*DirOPCA*	*H010-H100*	*13*	*353.8*	*-8.4*	*1.8*		*5.9*			
A29-3	*DirOPCA*	*H015-H100*	*12*	*351.4*	*-8.5*	*2.4*		*5.2*			
A29		***flow mean***	***3***	***353.0***	***-8.2***	***2.4***	***2592.3***		***74.9***	***182.6***	***1.7***
B1-1	DirOPCA	H015-H180	16	41.8	10.8	4.9		0.9			
B1-2	DirOPCA	H015-H045	7	45.2	18.9	3.7		2.1			
B1-3	GCn PCA	H020-H045	6	99.4	1.5	9.7		0.9			
B1		**flow mean**	**3**	**32.2**	**16.1**	**42.1**	**12.8**		**49.0**	**264.0**	**9.5**
B2-1	DirOPCA	H010-H140	15	11.7	8.6	5.7		4.0			
B2-2	DirOPCA	H015-H080	11	25.8	17.1	4.0		2.6			
B2-3	DirOPCA	H010-H080	12	15.2	1.6	4.2		5.2			
B2		**flow mean**	**3**	**17.5**	**9.1**	**16.2**	**58.8**		**61.9**	**249.9**	**11.6**
B3-1	DirOPCA	H005-H180	18	9.7	-16.5	0.5		13.3			
B3-2	DirOPCA	H005-H180	18	7.6	-16.3	0.4		13.2			
B3-3	DirOPCA	H020-H190	18	4.8	-20.5	0.5		13.2			
B3		**flow mean**	**3**	**7.4**	**-17.8**	**5.1**	**593.7**		**78.9**	**251.7**	**3.8**
B4	DirOPCA	H010-H140	1	346.6	-20.5	0.8		12.8			
B4		**flow mean**	**1**	**346.6**	**-20.5**			**12.8**	**75.2**	**147.0**	
B5-2	DirOPCA	H010-H180	17	8.3	-21.1	0.4		8.8			
B5-3	DirOPCA	H010-H180	16	7.3	-23.9	0.5		7.7			
B5		**flow mean**	**2**	**7.8**	**-22.5**	**6.4**	**1510.4**		**80.4**	**263.4**	**4.9**

Code DirOPCA or GCn PCA signifies that a line anchored to the origin or a great circle (plane), respectively, was found by Principal Component Analysis to best fit the chosen demagnetization step directions for that sample.

Flow mean determined using the statistical methods of Fisher (1953) for lines and McFadden and McElhinny (1988) for combined lines and planes.

Step range denotes the alternating-field demagnetization steps chosen for the best-fit lines and planes that determine the characteristic direction for each sample.

Ordinary typeface is for each sample: N = number of steps used; Dec/Inc/α_{95} = declination/inclination/maximum angular deviation (Kirschvink, 1980) in degrees for the PCA best-fit line or plane; NRM = natural remanent magnetization in A/m.

Bold typeface is for each flow mean: N = number of samples used; Dec/Inc/α_{95}/k and VGP Lat/VGP Long/ A_{95} = declination/inclination/95% confidence limit/precision parameter and virtual geomagnetic pole north latitude/east longitude/95% confidence limit.

Italic typeface indicates samples were oriented using a sun compass.

Paleomagnetic analysis used software package PMGSC created by R. Enkin.

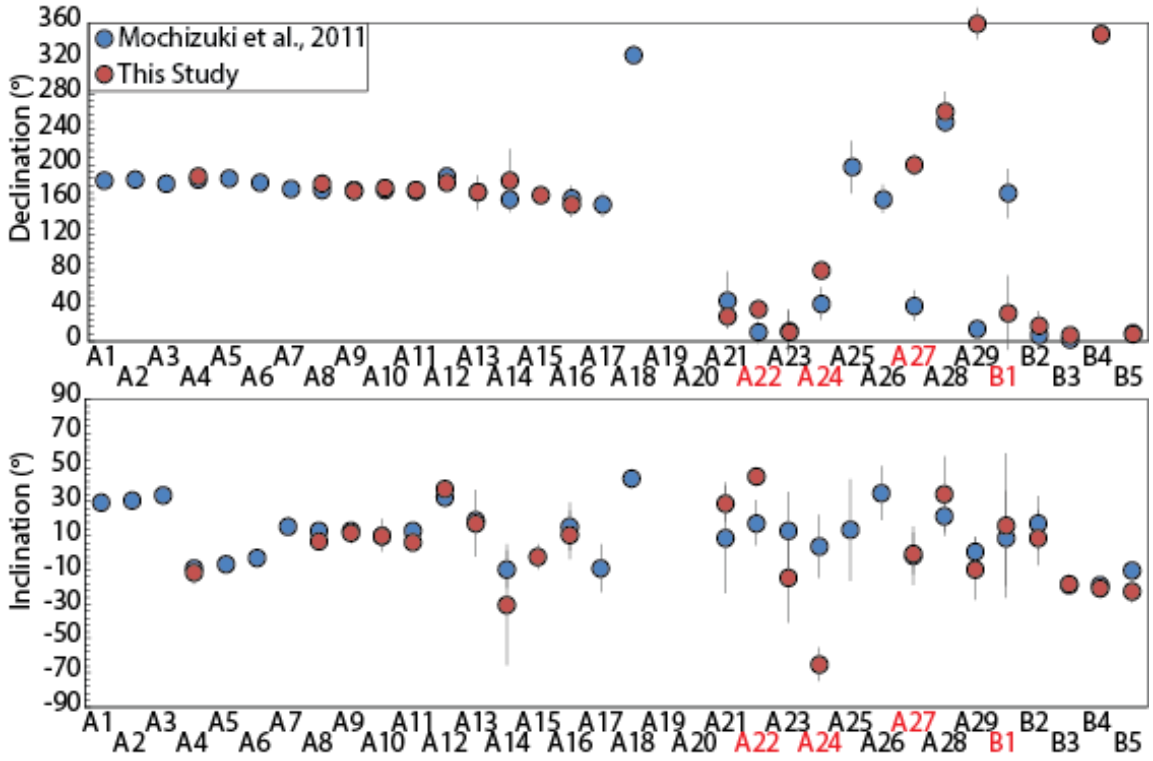


Figure S15: Mean declination and inclination for each lava flow analyzed in Mochizuki et al. (2011) (Blue circles) and this study (red). Uncertainties represent the reported α_{95} values. The four flow discrepancies between this study and Mochizuki et al. (2011) are denoted with red text.

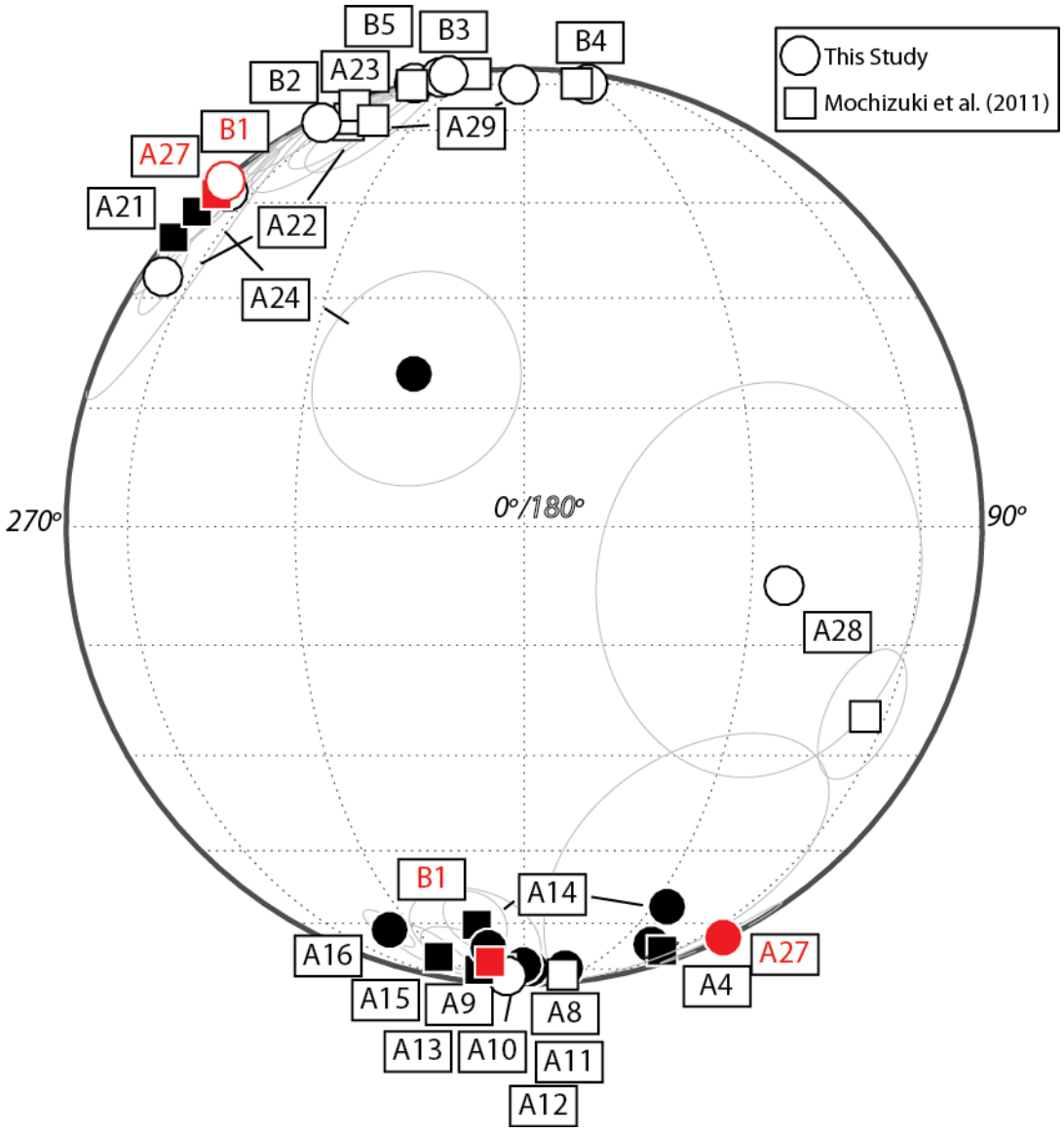


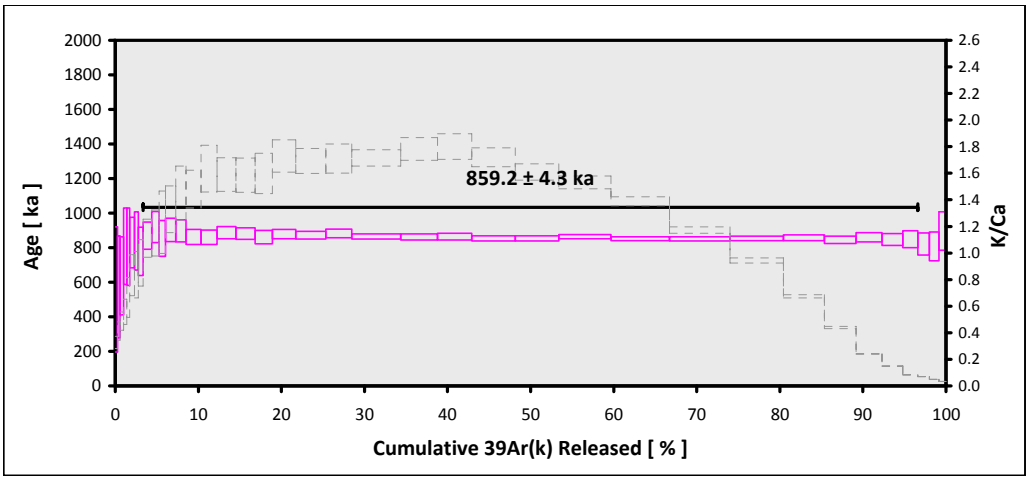
Figure S16: Equal area plot with mean virtual geomagnetic poles (VGPs) for each lava flow analyzed in this study (circles) and corresponding results from Mochizuki et al. (2011) (squares). Solid symbols represent the 0-90 and 270-360° orientation and hollow symbols represent 90-270° longitude. Uncertainties represent the reported α_{95} values (grey circles). The major discrepancies between this study and Mochizuki et al. (2011) are colored red.

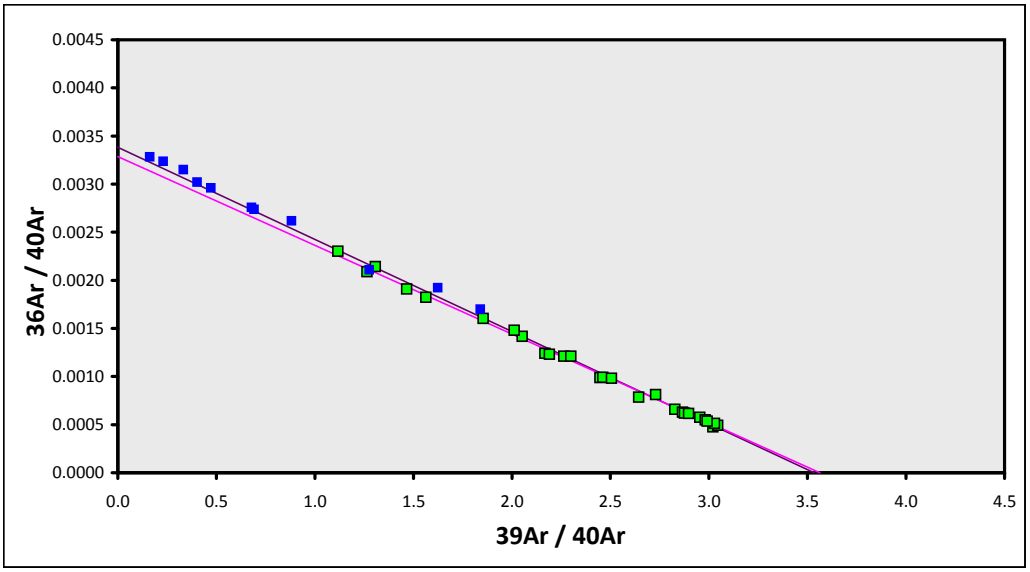
EXP#15D00762 > A12-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A12-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 28.21 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.35857 ± 0.00945**
FCT-NM J-value = **0.00167947 ± 0.00000170**
Air Shot 40Ar/36Ar = **303.5410 ± 0.4857**
Air Shot MDF = **0.99336878 ± 0.00069684 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.28297 ± 0.00129 (± 0.46%)	**859.2 ± 4.3 (± 0.50%)**	0.98	93.25	0.119 ± 0.041
		Full External Error ± 19.9		49%	27	
		Analytical Error ± 3.9		1.55	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.28228 ± 0.00169 (± 0.60%)	**857.1 ± 5.4 (± 0.63%)**		38	0.514 ± 0.002
		Full External Error ± 20.1				
		Analytical Error ± 5.1				
Normal Isochron	**303.82 ± 6.78 (± 2.23%)**	0.28064 ± 0.00219 (± 0.78%)	**852.1 ± 6.9 (± 0.80%)**	0.72	93.25	
		Full External Error ± 20.4		84%	27	
		Analytical Error ± 6.6		1.57	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**304.36 ± 6.82 (± 2.24%)**	0.28071 ± 0.00220 (± 0.78%)	**852.3 ± 6.9 (± 0.81%)**	0.74	93.25	
		Full External Error ± 20.4		82%	27	
		Analytical Error ± 6.7		1.57	2σ Confidence Limit	
				1.0000	Error Magnification	
				54%	Spreading Factor	



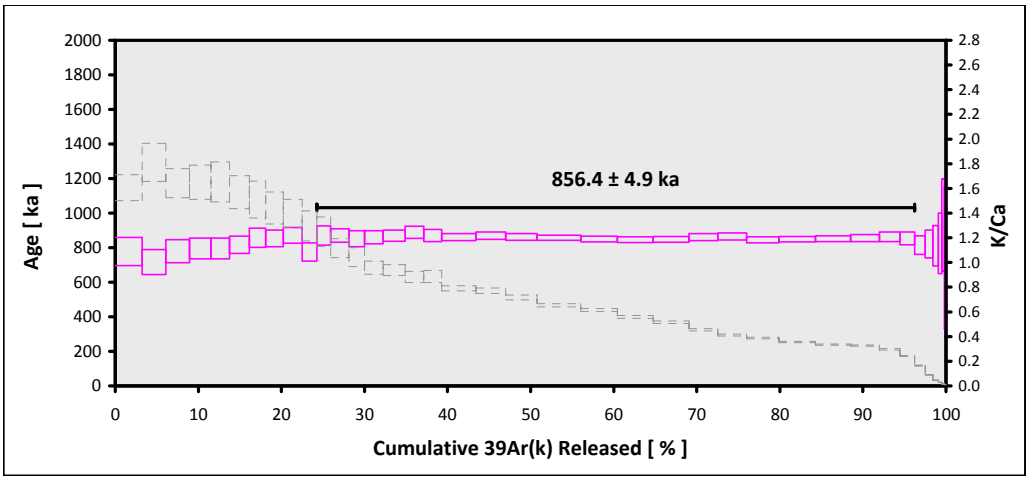


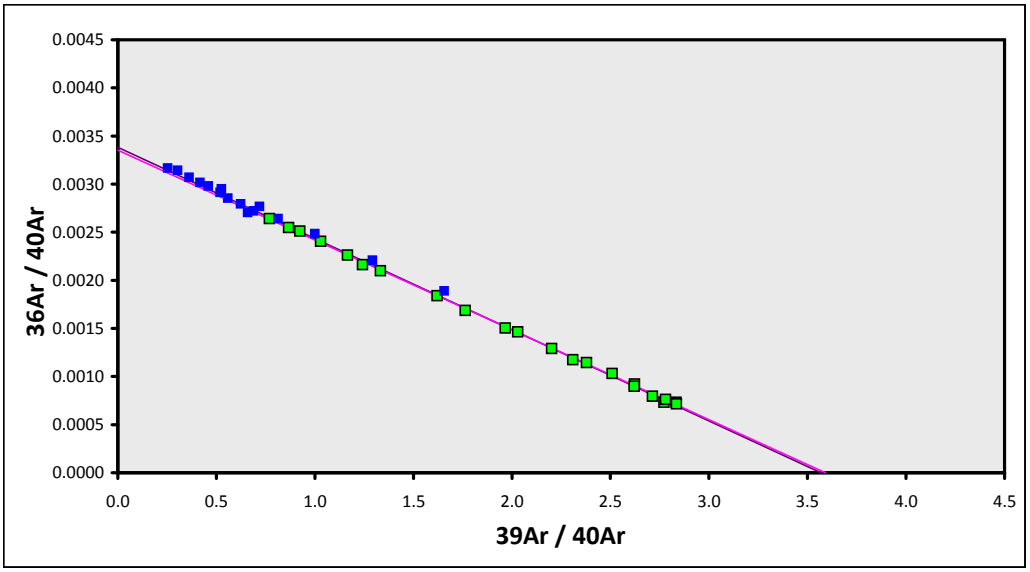
EXP#15D00864 > A12-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A12-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 25.24 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.30078 ± 0.00949**
FCT-NM J-value = **0.00168990 ± 0.00000172**
Air Shot 40Ar/36Ar = **303.5620 ± 0.4978**
Air Shot MDF = **0.99335192 ± 0.00070230 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.28032 ± 0.00150	**856.4 ± 4.9**	0.67	71.94	0.373 ± 0.054
		± 0.54%	**± 0.57%**	87%	22	
		Full External Error ± 19.9		1.62	2σ Confidence Limit	
		Analytical Error ± 4.6		1.0000	Error Magnification	
Total Fusion Age		0.27589 ± 0.00209	**842.9 ± 6.6**		38	0.417 ± 0.002
		± 0.76%	**± 0.79%**			
		Full External Error ± 20.1				
		Analytical Error ± 6.4				
Normal Isochron	**298.26 ± 2.51**	0.27844 ± 0.00222	**850.7 ± 7.0**	0.45	71.94	
	± 0.84%	± 0.80%	**± 0.82%**	98%	22	
		Full External Error ± 20.4		1.63	2σ Confidence Limit	
		Analytical Error ± 6.8		1.0000	Error Magnification	
Inverse Isochron	**298.25 ± 2.52**	0.27854 ± 0.00223	**851.0 ± 7.0**	0.46	71.94	
	± 0.84%	± 0.80%	**± 0.83%**	98%	22	
		Full External Error ± 20.5		1.63	2σ Confidence Limit	
		Analytical Error ± 6.8		1.0000	Error Magnification	
				58%	Spreading Factor	



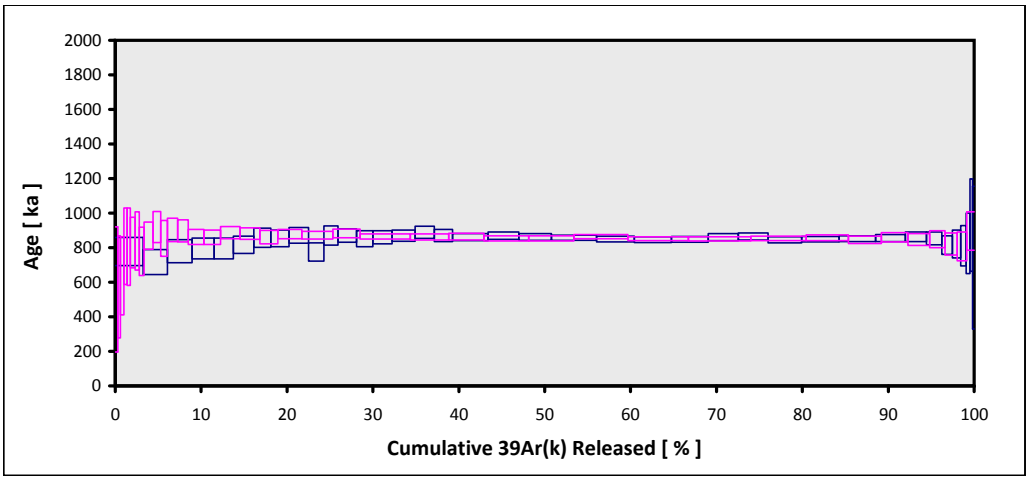


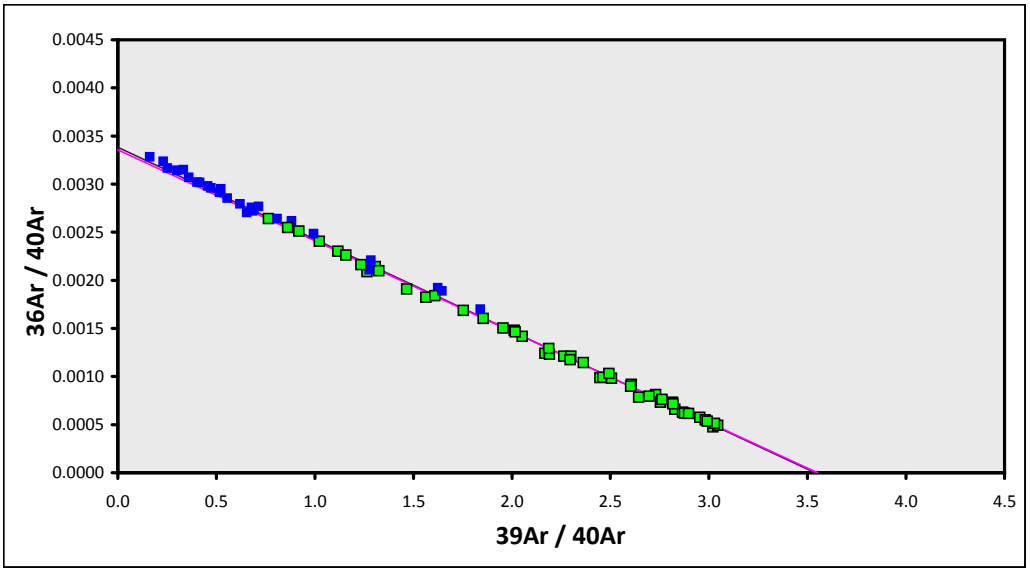
STACK > A12-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **A12-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 28.21 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.35857 ± 0.00945**
FCT-NM J-value = **0.00167947 ± 0.00000170**
Air Shot 40Ar/36Ar = **303.5410 ± 0.4857**
Air Shot MDF = **0.99336878 ± 0.00069684 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.28259 ± 0.00098 (± 0.35%)	**858.0 ± 3.5 (± 0.40%)**	0.84	82.91	0.161 ± 0.041
		Full External Error ± 19.7		78%	49	
		Analytical Error ± 3.0		1.41	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.28001 ± 0.00134 (± 0.48%)	**850.2 ± 4.4 (± 0.52%)**		76	0.462 ± 0.001
		Full External Error ± 19.7				
		Analytical Error ± 4.1				
Normal Isochron	**298.08 ± 2.13 (± 0.72%)**	0.28129 ± 0.00134 (± 0.48%)	**854.1 ± 4.4 (± 0.52%)**	0.71	82.91	
		Full External Error ± 19.8		93%	49	
		Analytical Error ± 4.1		1.41	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**298.00 ± 2.14 (± 0.72%)**	0.28154 ± 0.00134 (± 0.48%)	**854.9 ± 4.4 (± 0.52%)**	0.74	82.91	
		Full External Error ± 19.8		91%	49	
		Analytical Error ± 4.1		1.41	2σ Confidence Limit	
				1.0000	Error Magnification	
				64%	Spreading Factor	



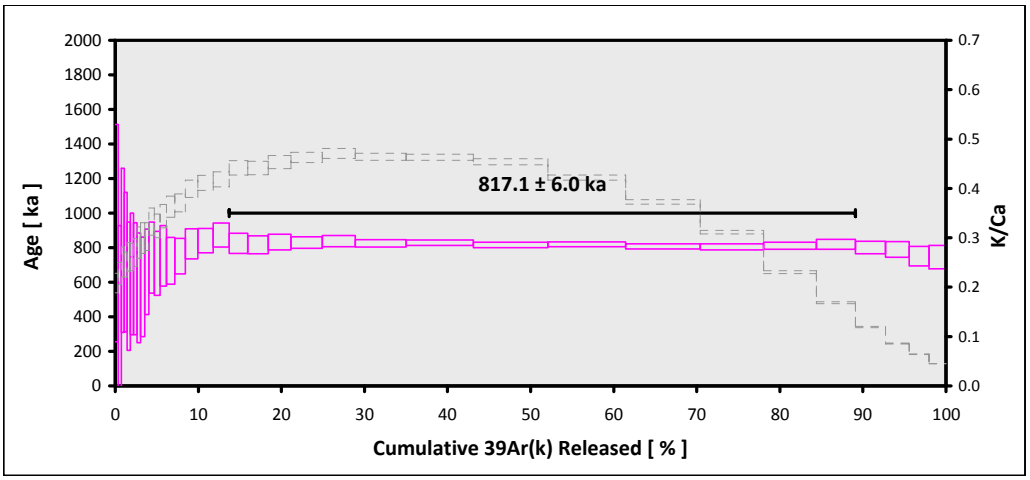


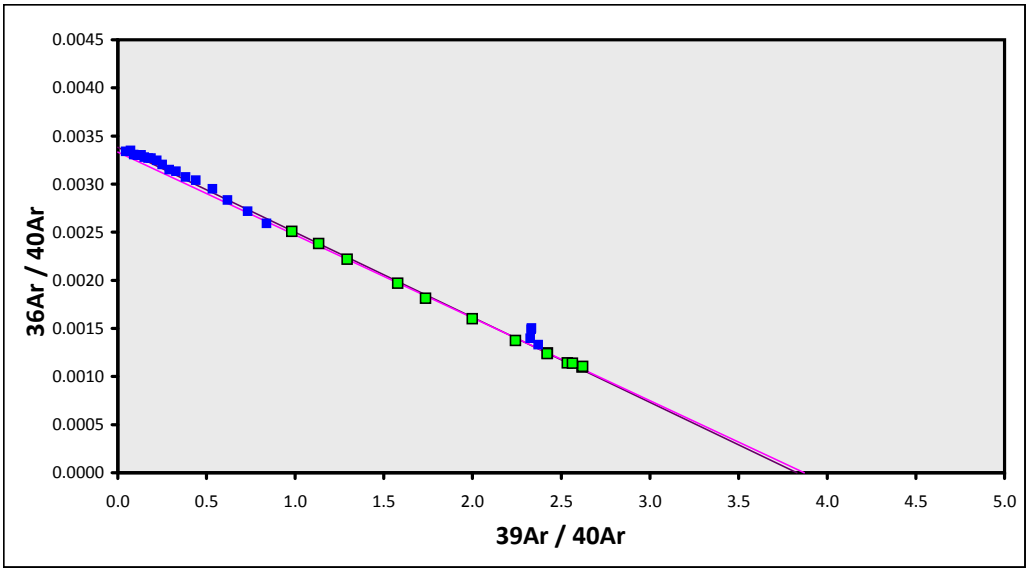
EXP#15D01112 > A16-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A16-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 10.77 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.08215 ± 0.00945**
FCT-NM J-value = **0.00173058 ± 0.00000180**
Air Shot 40Ar/36Ar = **303.6130 ± 0.5101**
Air Shot MDF = **0.99331099 ± 0.00070777 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26116 ± 0.00184 ± 0.71%	**817.1 ± 6.0 ± 0.74%**	0.82 63% 1.82 1.0000	75.38 13 2σ Confidence Limit Error Magnification	0.273 ± 0.064
		Full External Error ± 19.4				
		Analytical Error ± 5.8				
Total Fusion Age		0.25727 ± 0.00262 ± 1.02%	**804.9 ± 8.4 ± 1.04%**		35	0.252 ± 0.001
		Full External Error ± 20.0				
		Analytical Error ± 8.2				
Normal Isochron	**300.11 ± 5.33 ± 1.77%**	0.25830 ± 0.00370 ± 1.43%	**808.1 ± 11.7 ± 1.45%**	0.62 82% 1.85 1.0000	75.38 13 2σ Confidence Limit Error Magnification	
		Full External Error ± 21.7				
		Analytical Error ± 11.6				
Inverse Isochron	**300.10 ± 5.35 ± 1.78%**	0.25839 ± 0.00372 ± 1.44%	**808.4 ± 11.8 ± 1.46%**	0.61 82% 1.85 1.0000 42%	75.38 13 2σ Confidence Limit Error Magnification Spreading Factor	
		Full External Error ± 21.7				
		Analytical Error ± 11.7				



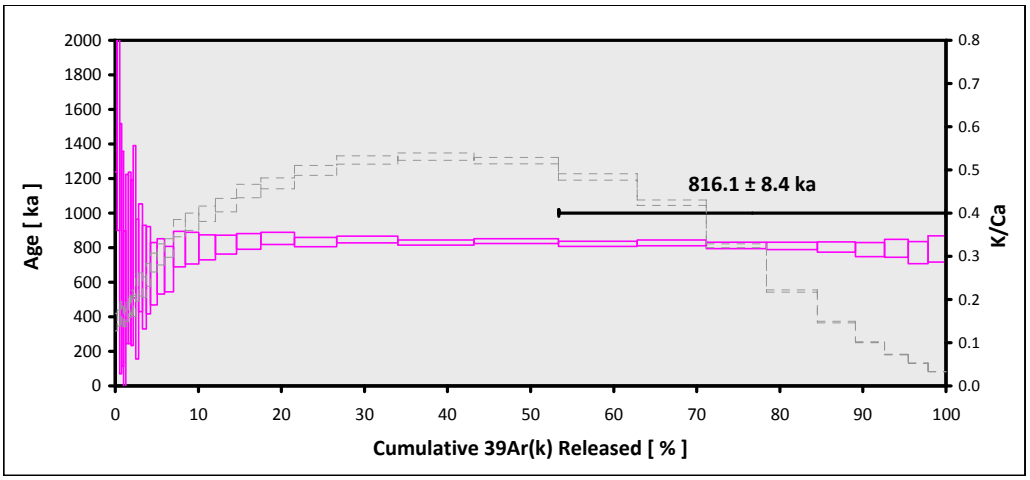


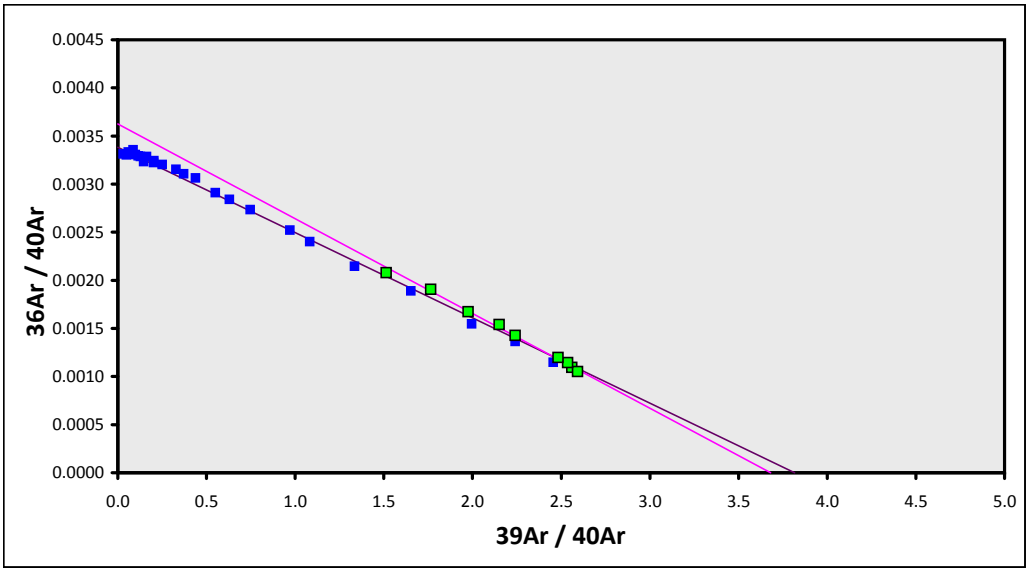
EXP#15D01013 > A16-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A16-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 14.14 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.12374 ± 0.00949**
FCT-NM J-value = **0.00172269 ± 0.00000179**
Air Shot 40Ar/36Ar = **303.6080 ± 0.5010**
Air Shot MDF = **0.99331500 ± 0.00070358 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26204 ± 0.00265 (± 1.01%)	**816.1 ± 8.4 (± 1.03%)**	1.09	46.63	0.052 ± 0.029
		Full External Error ± 20.3		37%	9	
		Analytical Error ± 8.3		2.00	2σ Confidence Limit	
				1.0448	Error Magnification	
Total Fusion Age		0.26264 ± 0.00281 (± 1.07%)	**818.0 ± 8.9 (± 1.09%)**		35	0.232 ± 0.001
		Full External Error ± 20.5				
		Analytical Error ± 8.8				
Normal Isochron	**275.61 ± 15.61 (± 5.66%)**	0.27171 ± 0.00802 (± 2.95%)	**846.2 ± 25.0 (± 2.96%)**	0.44	46.63	
		Full External Error ± 31.5		88%	9	
		Analytical Error ± 25.0		2.07	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**275.91 ± 15.53 (± 5.63%)**	0.27164 ± 0.00795 (± 2.93%)	**846.0 ± 24.8 (± 2.93%)**	0.45	46.63	
		Full External Error ± 31.3		87%	9	
		Analytical Error ± 24.8		2.07	2σ Confidence Limit	
				1.0000	Error Magnification	
				29%	Spreading Factor	



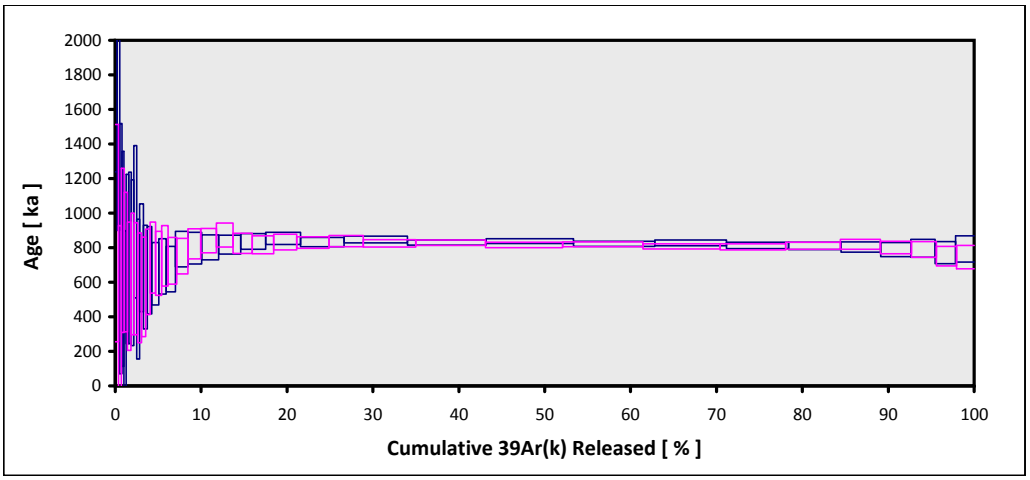


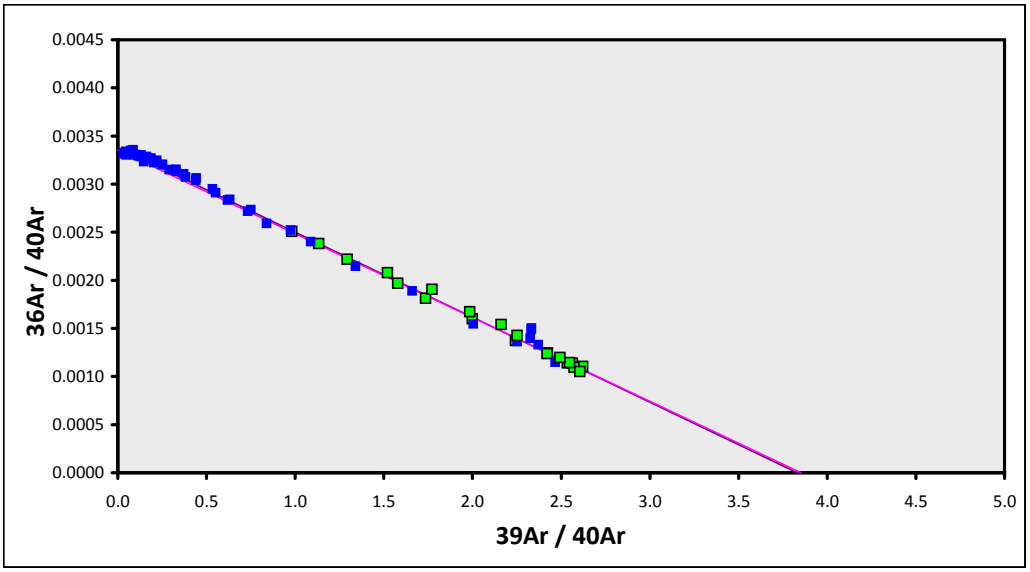
STACK > A16-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Dan Miggins

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **A16-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Dan Miggins**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 10.77 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.08215 ± 0.00945**
FCT-NM J-value = **0.00173058 ± 0.00000180**
Air Shot 40Ar/36Ar = **303.6130 ± 0.5101**
Air Shot MDF = **0.99331099 ± 0.00070777 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26105 ± 0.00149 (± 0.57%)	**816.8 ± 5.0 (± 0.61%)**	0.88 61%	62.44 22	0.062 ± 0.029
		Full External Error ± 19.1		1.62	2σ Confidence Limit	
		Analytical Error ± 4.7		1.0000	Error Magnification	
Total Fusion Age		0.25915 ± 0.00191 (± 0.74%)	**810.8 ± 6.2 (± 0.77%)**		70	0.243 ± 0.001
		Full External Error ± 19.3				
		Analytical Error ± 6.0				
Normal Isochron	**297.96 ± 4.98 (± 1.67%)**	0.25950 ± 0.00318 (± 1.22%)	**811.9 ± 10.1 (± 1.24%)**	0.90 59%	62.44 22	
		Full External Error ± 20.9		1.63	2σ Confidence Limit	
		Analytical Error ± 9.9		1.0000	Error Magnification	
Inverse Isochron	**298.04 ± 4.99 (± 1.67%)**	0.25962 ± 0.00318 (± 1.22%)	**812.3 ± 10.1 (± 1.24%)**	0.88 62%	62.44 22	
		Full External Error ± 20.9		1.63	2σ Confidence Limit	
		Analytical Error ± 9.9		1.0000	Error Magnification	
				43%	Spreading Factor	



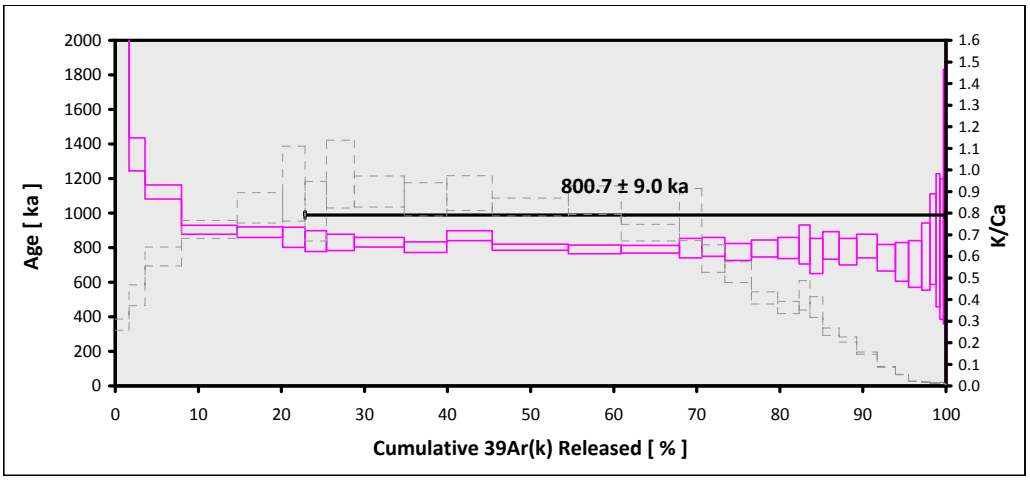


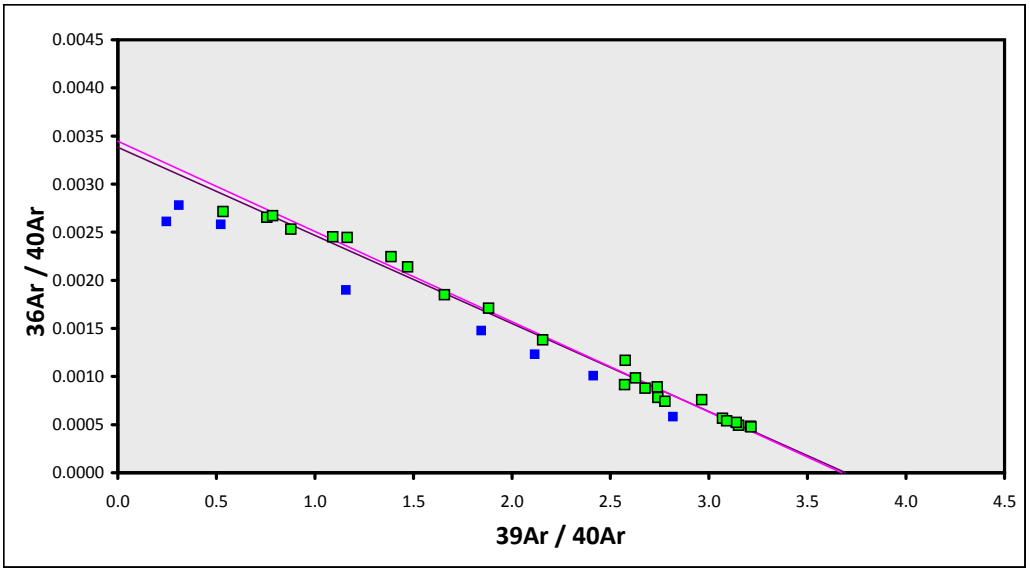
EXP#15D30647 > A22-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C31-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A22-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C31-15)**
Position = **X: 0 | Y: 0 | Z/H: 57.32 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.60625 ± 0.00932**
FCT-NM J-value = **0.00163616 ± 0.00000159**
Air Shot 40Ar/36Ar = **303.9070 ± 0.5501**
Air Shot MDF = **0.99307529 ± 0.00072584 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **3.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.27069 ± 0.00301	**800.7 ± 9.0**	0.85	71.59	0.017 ± 0.004
		± 1.11%	**± 1.13%**	67%	25	
		Full External Error	± 20.2	1.58	2σ Confidence Limit	
		Analytical Error	± 8.9	1.0000	Error Magnification	
Total Fusion Age		0.29512 ± 0.00328	**872.9 ± 9.8**		33	0.204 ± 0.001
		± 1.11%	**± 1.13%**			
		Full External Error	± 22.0			
		Analytical Error	± 9.7			
Normal Isochron	**289.36 ± 9.19**	0.27151 ± 0.00388	**803.1 ± 11.6**	0.78	71.59	
	± 3.18%	± 1.43%	**± 1.44%**	76%	25	
		Full External Error	± 21.5	1.59	2σ Confidence Limit	
		Analytical Error	± 11.5	1.0000	Error Magnification	
Inverse Isochron	**290.23 ± 9.29**	0.27222 ± 0.00390	**805.2 ± 11.7**	0.83	71.59	
	± 3.20%	± 1.43%	**± 1.45%**	69%	25	
		Full External Error	± 21.6	1.59	2σ Confidence Limit	
		Analytical Error	± 11.5	1.0000	Error Magnification	
				73%	Spreading Factor	



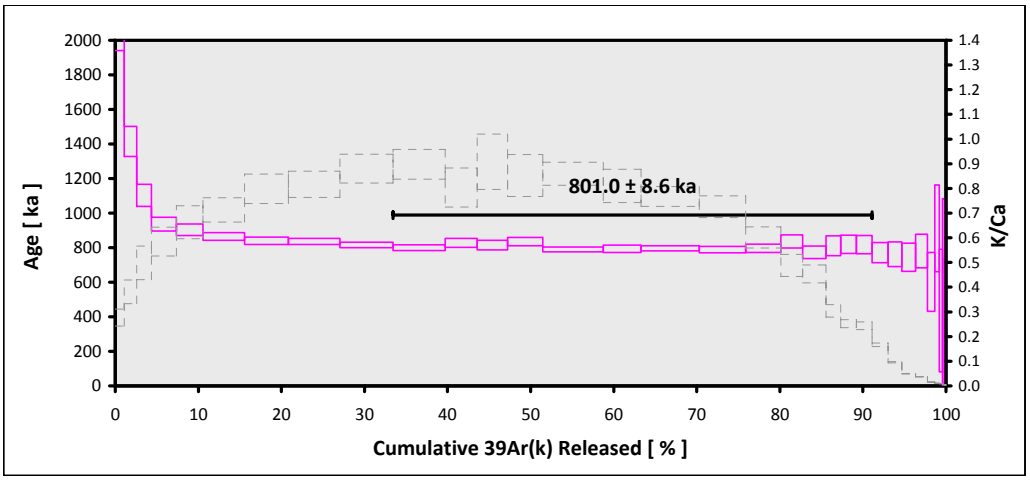


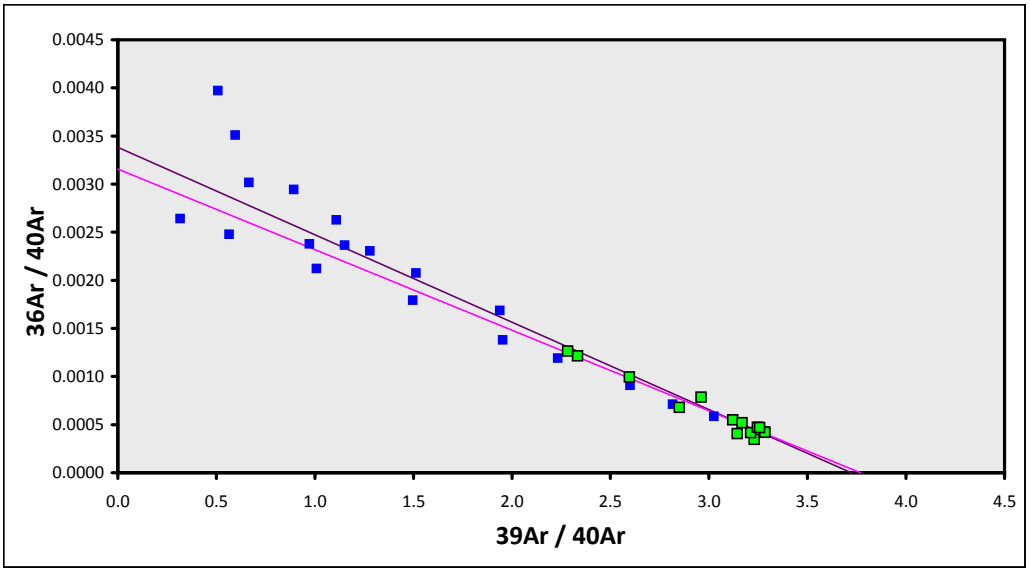
EXP#15D30764 > A22-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C30-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A22-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C30-15)**
Position = **X: 0 | Y: 0 | Z/H: 54.95 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.52933 ± 0.00924**
FCT-NM J-value = **0.00164937 ± 0.00000160**
Air Shot 40Ar/36Ar = **304.0060 ± 0.5533**
Air Shot MDF = **0.99299603 ± 0.00072708 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **3.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26862 ± 0.00285	**801.0 ± 8.6**	1.99	57.69	0.387 ± 0.119
Error Mean		± 1.06%	**± 1.08%**	2%	14	
			Full External Error ± 20.0	1.78	2σ Confidence Limit	
			Analytical Error ± 8.5	1.4104	Error Magnification	
Total Fusion Age		0.28117 ± 0.00220	**838.4 ± 6.8**		33	0.208 ± 0.001
		± 0.78%	**± 0.81%**			
			Full External Error ± 20.1			
			Analytical Error ± 6.6			
Normal Isochron	**315.27 ± 36.27**	0.26426 ± 0.00647	**788.0 ± 19.4**	1.52	57.69	
No Convergence	**± 11.50%**	± 2.45%	**± 2.46%**	11%	14	
			Full External Error ± 26.3	1.82	2σ Confidence Limit	
			Analytical Error ± 19.3	1.2309	Error Magnification	
Inverse Isochron	**316.68 ± 42.27**	0.26525 ± 0.00724	**791.0 ± 21.6**	1.98	57.69	
Error Chron	**± 13.35%**	± 2.73%	**± 2.73%**	2%	14	
			Full External Error ± 28.0	1.82	2σ Confidence Limit	
			Analytical Error ± 21.6	1.4077	Error Magnification	
				27%	Spreading Factor	



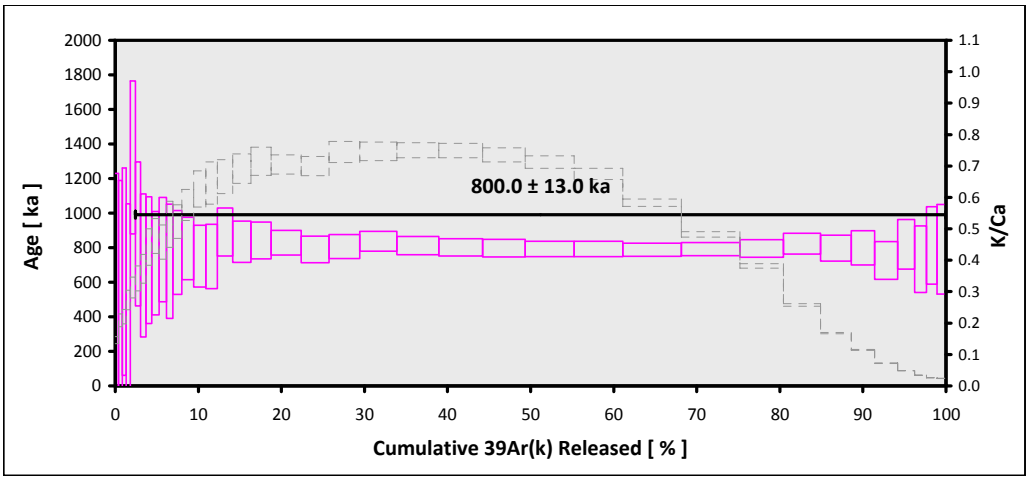


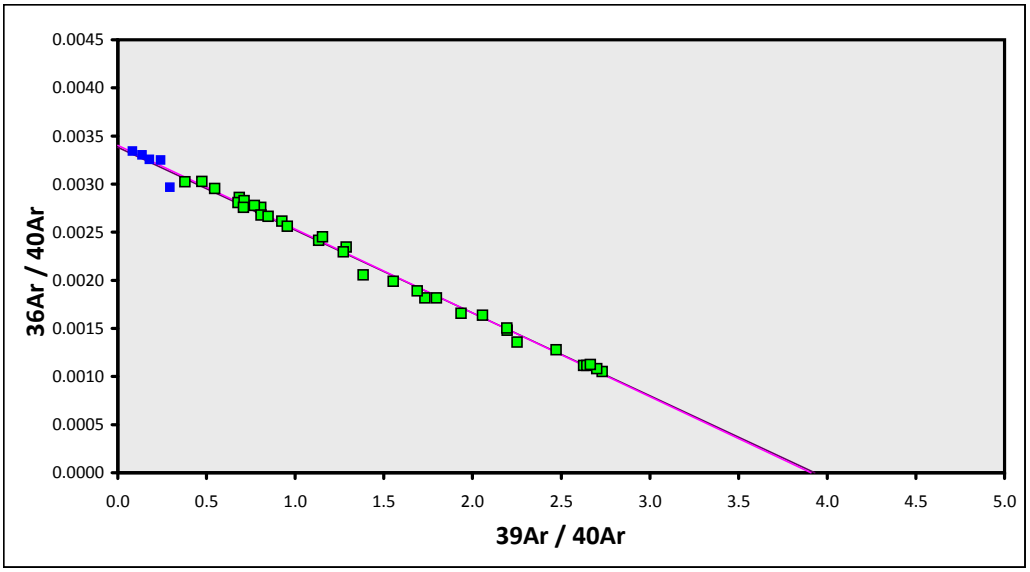
EXP#15D00555 > A22-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A22-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 6.55 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.03805 ± 0.00949**
FCT-NM J-value = **0.00173902 ± 0.00000183**
Air Shot 40Ar/36Ar = **303.4870 ± 0.4856**
Air Shot MDF = **0.99341214 ± 0.00069697 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25446 ± 0.00411	**800.0 ± 13.0**	0.34	97.58	0.034 ± 0.010
		± 1.62%	**± 1.63%**	100%	33	
		Full External Error	± 22.3	1.50	2σ Confidence Limit	
		Analytical Error	± 12.9	1.0000	Error Magnification	
Total Fusion Age		0.25353 ± 0.00527	**797.1 ± 16.6**		38	0.239 ± 0.001
		± 2.08%	**± 2.09%**			
		Full External Error	± 24.5			
		Analytical Error	± 16.6			
Normal Isochron	**293.89 ± 5.03**	0.25561 ± 0.00587	**803.6 ± 18.5**	0.33	97.58	
	± 1.71%	± 2.30%	**± 2.31%**	100%	33	
		Full External Error	± 25.9	1.51	2σ Confidence Limit	
		Analytical Error	± 18.5	1.0000	Error Magnification	
Inverse Isochron	**294.03 ± 5.05**	0.25581 ± 0.00591	**804.3 ± 18.6**	0.34	97.58	
	± 1.72%	± 2.31%	**± 2.32%**	100%	33	
		Full External Error	± 26.0	1.51	2σ Confidence Limit	
		Analytical Error	± 18.6	1.0000	Error Magnification	
				60%	Spreading Factor	



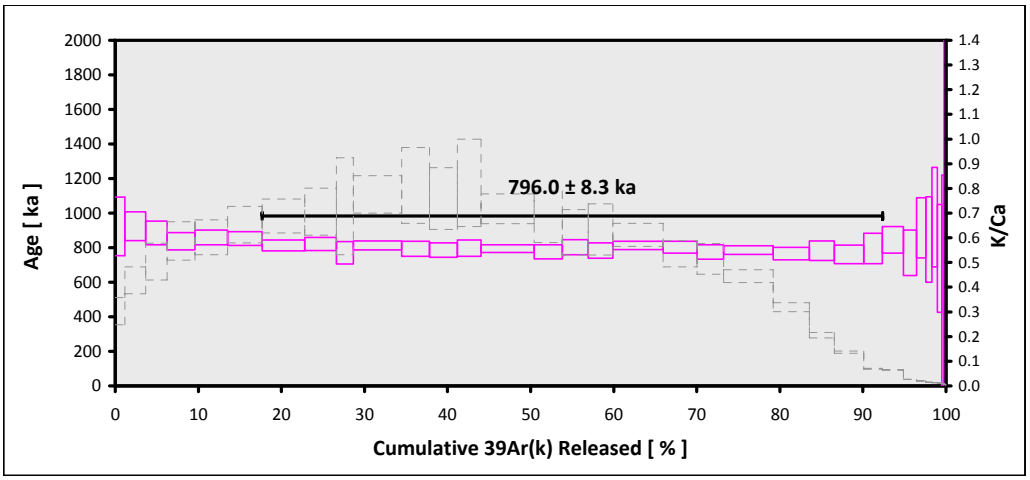


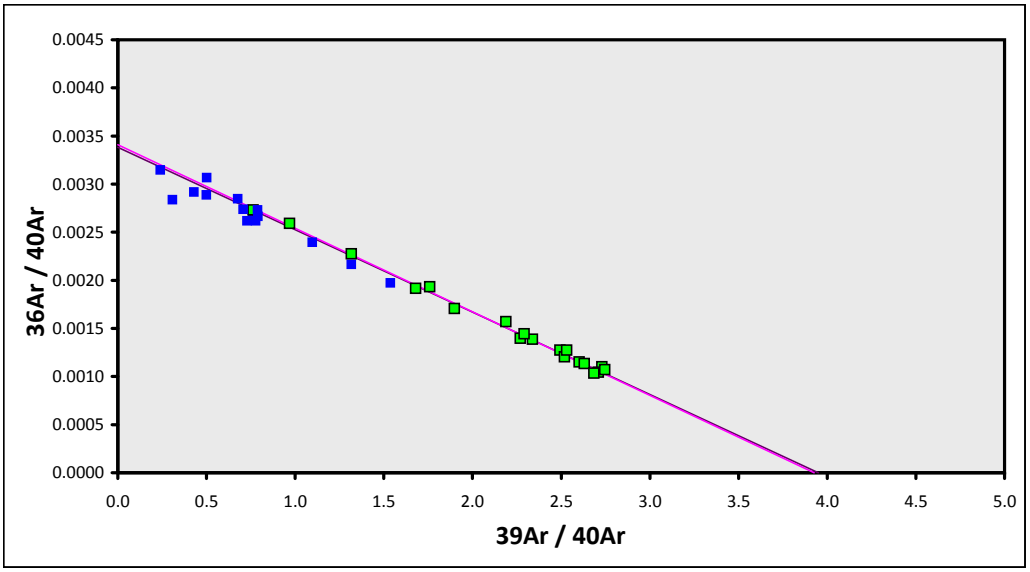
EXP#15D05483 > A22-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A22-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 6.55 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.03805 ± 0.00949**
FCT-NM J-value = **0.00173902 ± 0.00000183**
Air Shot 40Ar/36Ar = **303.4490 ± 0.5553**
Air Shot MDF = **0.99344266 ± 0.00072991 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25316 ± 0.00260 (± 1.03%)	**796.0 ± 8.3 (± 1.05%)**	0.86	74.67	0.090 ± 0.029
		Full External Error ± 19.8		63%	19	
		Analytical Error ± 8.2		1.67	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25802 ± 0.00303 (± 1.18%)	**811.2 ± 9.7 (± 1.19%)**		34	0.169 ± 0.001
		Full External Error ± 20.7				
		Analytical Error ± 9.5				
Normal Isochron	**293.38 ± 5.21 (± 1.77%)**	0.25428 ± 0.00442 (± 1.74%)	**799.5 ± 14.0 (± 1.75%)**	0.87	74.67	
		Full External Error ± 22.8		61%	19	
		Analytical Error ± 13.9		1.69	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**293.33 ± 5.21 (± 1.78%)**	0.25467 ± 0.00441 (± 1.73%)	**800.7 ± 14.0 (± 1.74%)**	0.87	74.67	
		Full External Error ± 22.8		61%	19	
		Analytical Error ± 13.9		1.69	2σ Confidence Limit	
				1.0000	Error Magnification	
				50%	Spreading Factor	



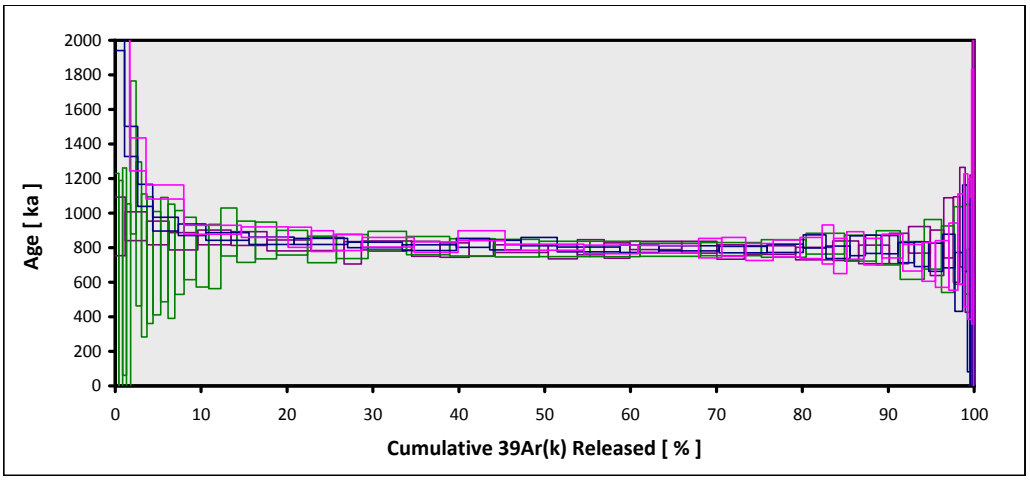


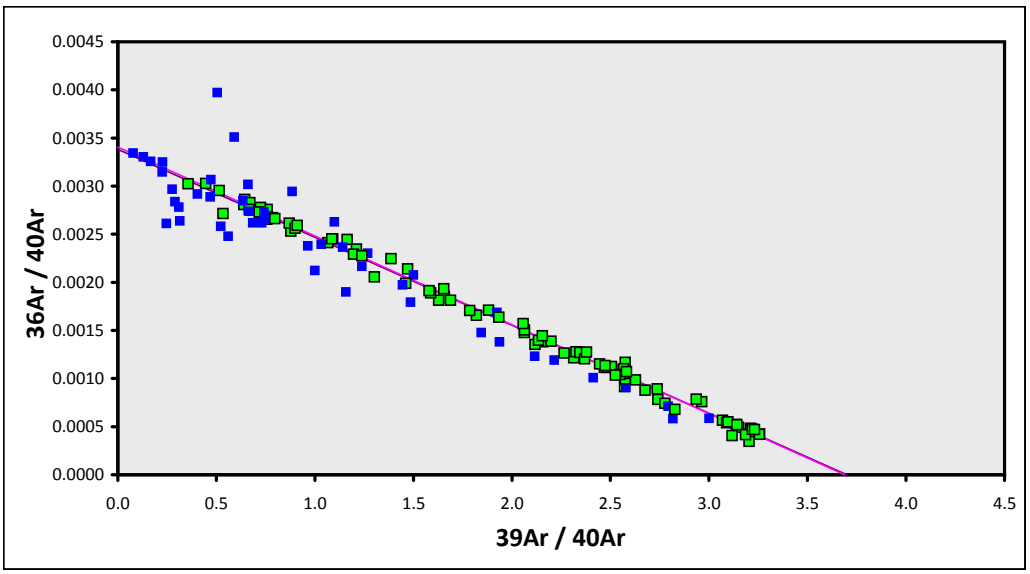
STACK > A22-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C31-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **A22-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C31-15)**
Position = **X: 0 | Y: 0 | Z/H: 57.32 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.60625 ± 0.00932**
FCT-NM J-value = **0.00163616 ± 0.00000159**
Air Shot 40Ar/36Ar = **303.9070 ± 0.5501**
Air Shot MDF = **0.99307529 ± 0.00072584 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **3.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.27031 ± 0.00137 ± 0.51%	**799.6 ± 4.3 ± 0.54%**	0.82 89%	76.15 91	0.023 ± 0.005
		Full External Error ± 18.6 Analytical Error ± 4.0		1.30 1.0000	2σ Confidence Limit Error Magnification	
Total Fusion Age		0.28006 ± 0.00200 ± 0.71%	**828.4 ± 6.1 ± 0.74%**		138	0.204 ± 0.001
		Full External Error ± 19.7 Analytical Error ± 5.9				
Normal Isochron	**293.89 ± 2.75 ± 0.94%**	0.27028 ± 0.00175 ± 0.65%	**799.5 ± 5.4 ± 0.68%**	0.73 97%	76.15 91	
		Full External Error ± 18.8 Analytical Error ± 5.2		1.30 1.0000	2σ Confidence Limit Error Magnification	
Inverse Isochron	**293.71 ± 2.76 ± 0.94%**	0.27117 ± 0.00174 ± 0.64%	**802.1 ± 5.4 ± 0.67%**	0.81 90%	76.15 91	
		Full External Error ± 18.9 Analytical Error ± 5.2		1.30 1.0000 79%	2σ Confidence Limit Error Magnification Spreading Factor	



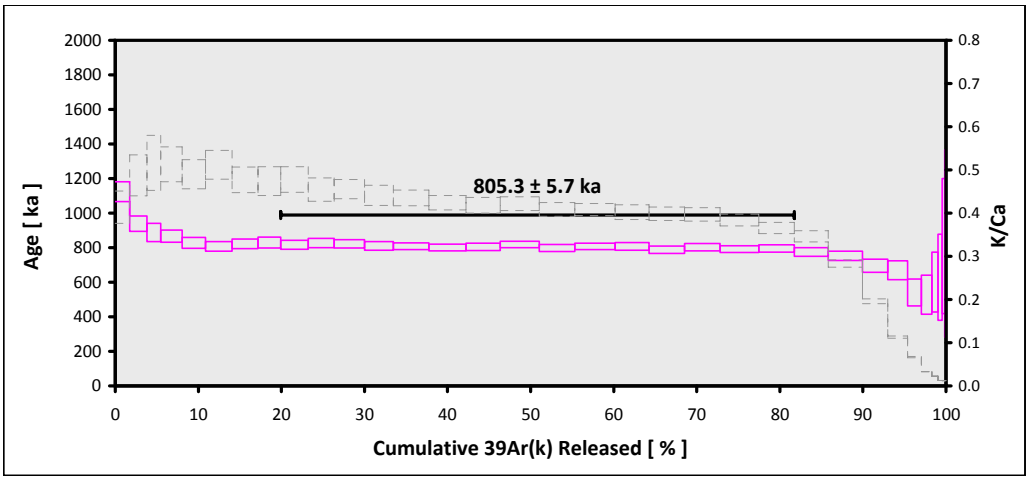


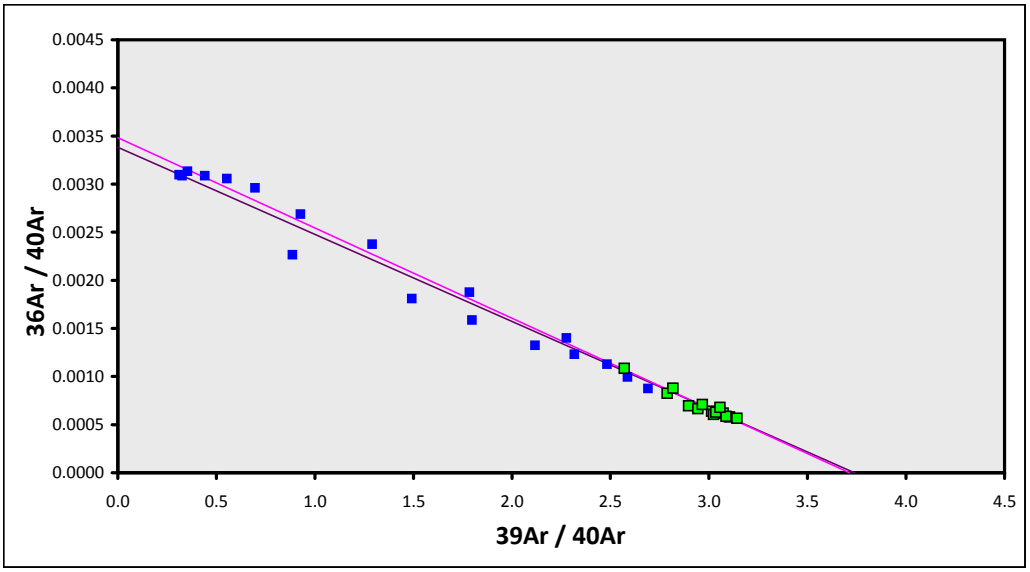
EXP#15D30718 > A23-AR-1 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C28-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A23-AR-1**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C28-15)**
Position = **X: 0 | Y: 0 | Z/H: 51.99 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.43681 ± 0.00925**
FCT-NM J-value = **0.00166554 ± 0.00000163**
Air Shot 40Ar/36Ar = **304.0240 ± 0.5381**
Air Shot MDF = **0.99298163 ± 0.00071970 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **3.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = Undefined
Age Classification = Undefined
IGSN = Undefined
Rock Class = Undefined
Lithology = Undefined
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26745 ± 0.00182	**805.3 ± 5.7**	0.98	61.80	0.409 ± 0.014
		± 0.68%	**± 0.71%**	47%	15	
		Full External Error ± 19.1		1.76	2σ Confidence Limit	
		Analytical Error ± 5.5		1.0000	Error Magnification	
Total Fusion Age		0.26515 ± 0.00189	**798.4 ± 5.9**		33	0.235 ± 0.001
		± 0.71%	**± 0.74%**			
		Full External Error ± 19.0				
		Analytical Error ± 5.7				
Normal Isochron	**287.25 ± 28.36**	0.26902 ± 0.00687	**810.1 ± 20.7**	1.01	61.80	
	± 9.87%	± 2.55%	**± 2.56%**	44%	15	
		Full External Error ± 27.6		1.78	2σ Confidence Limit	
		Analytical Error ± 20.7		1.0044	Error Magnification	
Inverse Isochron	**287.21 ± 29.21**	0.26941 ± 0.00694	**811.2 ± 21.0**	1.03	61.80	
	± 10.17%	± 2.58%	**± 2.58%**	42%	15	
		Full External Error ± 27.8		1.78	2σ Confidence Limit	
		Analytical Error ± 20.9		1.0165	Error Magnification	
				15%	Spreading Factor	



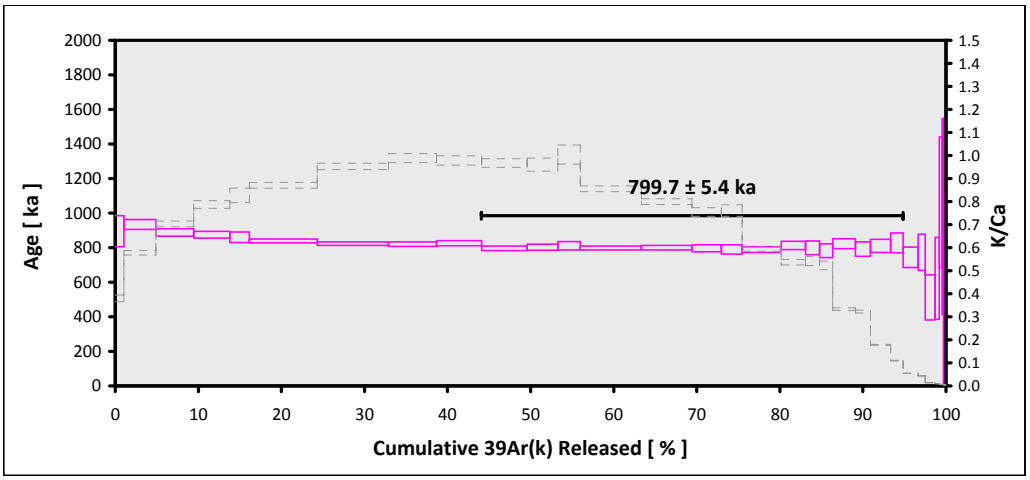


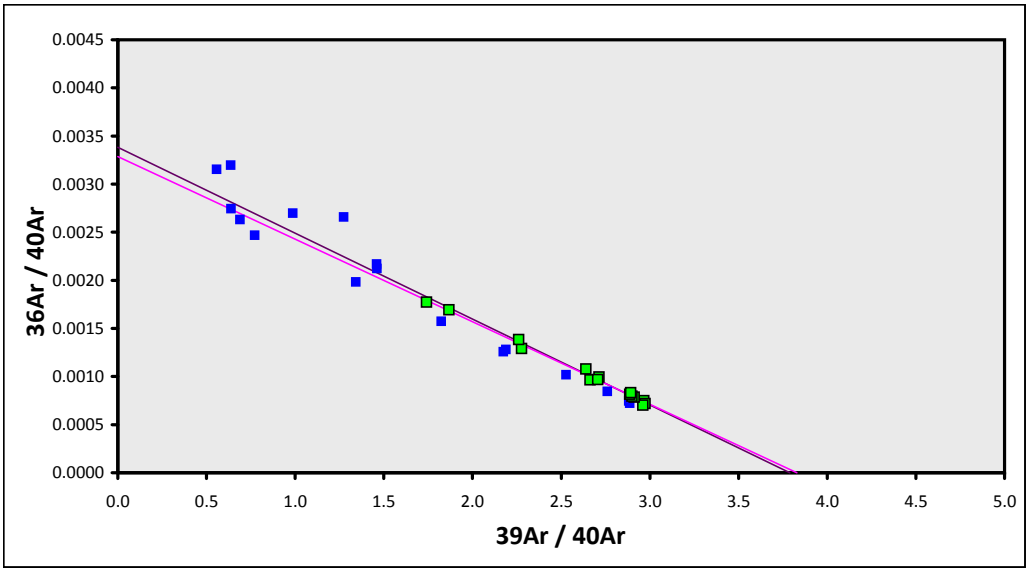
EXP#15D21803 > A23-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C27-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A23-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C27-15)**
Position = **X: 0 | Y: 0 | Z/H: 50.04 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.37802 ± 0.00928**
FCT-NM J-value = **0.00167598 ± 0.00000166**
Air Shot 40Ar/36Ar = **303.1570 ± 0.6700**
Air Shot MDF = **0.99367745 ± 0.00079069 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26391 ± 0.00170 (± 0.64%)	**799.7 ± 5.4 (± 0.67%)**	0.68	50.73	0.170 ± 0.072
		Full External Error ± 18.8		79%	15	
		Analytical Error ± 5.1		1.76	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.26973 ± 0.00168 (± 0.62%)	**817.3 ± 5.3 (± 0.65%)**		32	0.202 ± 0.001
		Full External Error ± 19.2				
		Analytical Error ± 5.1				
Normal Isochron	**303.69 ± 13.55 (± 4.46%)**	0.26120 ± 0.00461 (± 1.77%)	**791.4 ± 14.1 (± 1.78%)**	0.60	50.73	
		Full External Error ± 22.7		85%	15	
		Analytical Error ± 14.0		1.78	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**304.19 ± 13.54 (± 4.45%)**	0.26118 ± 0.00459 (± 1.76%)	**791.4 ± 14.0 (± 1.77%)**	0.60	50.73	
		Full External Error ± 22.7		85%	15	
		Analytical Error ± 13.9		1.78	2σ Confidence Limit	
				1.0000	Error Magnification	
				32%	Spreading Factor	



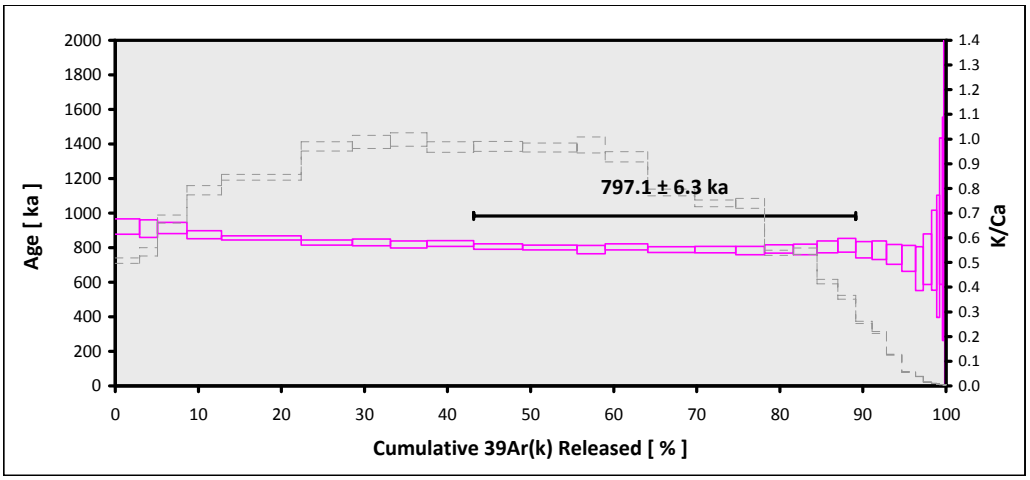


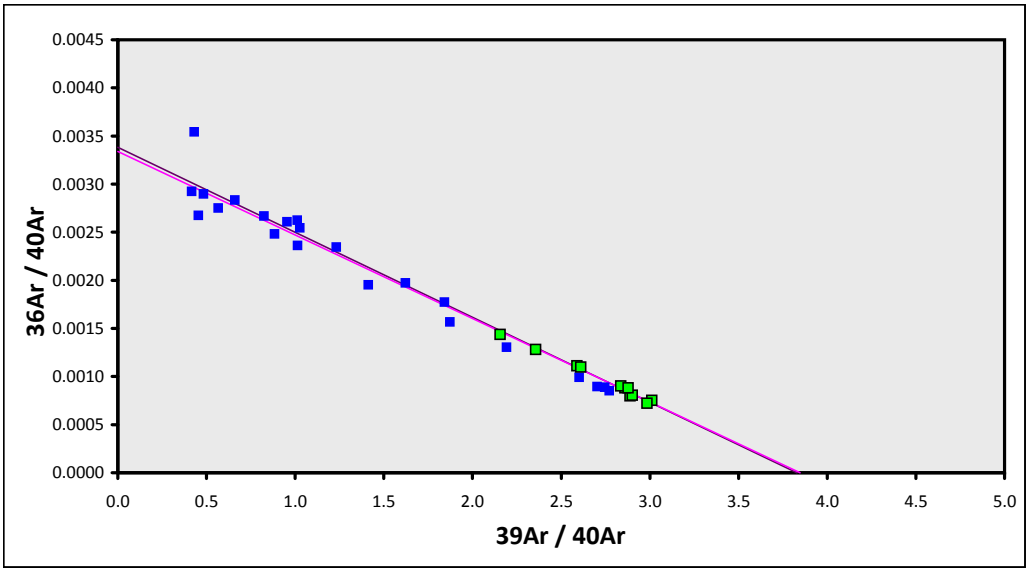
EXP#15D21726 > A23-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C26-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A23-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C26-15)**
Position = **X: 0 | Y: 0 | Z/H: 47.8 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.31260 ± 0.00931**
FCT-NM J-value = **0.00168776 ± 0.00000169**
Air Shot 40Ar/36Ar = **303.1660 ± 0.6609**
Air Shot MDF = **0.99367021 ± 0.00078569 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26122 ± 0.00198 ± 0.76%	**797.1 ± 6.3 ± 0.78%**	0.77 66%	45.97 11	0.570 ± 0.131
			Full External Error ± 19.0	1.89	2σ Confidence Limit	
			Analytical Error ± 6.1	1.0000	Error Magnification	
Total Fusion Age		0.26837 ± 0.00197 ± 0.73%	**818.9 ± 6.2 ± 0.76%**		33	0.189 ± 0.000
			Full External Error ± 19.5			
			Analytical Error ± 6.0			
Normal Isochron	**299.85 ± 23.95 ± 7.99%**	0.25963 ± 0.00780 ± 3.01%	**792.2 ± 23.9 ± 3.01%**	0.84 58%	45.97 11	
			Full External Error ± 29.8	1.94	2σ Confidence Limit	
			Analytical Error ± 23.8	1.0000	Error Magnification	
Inverse Isochron	**299.46 ± 23.75 ± 7.93%**	0.25999 ± 0.00765 ± 2.94%	**793.3 ± 23.4 ± 2.95%**	0.84 58%	45.97 11	
			Full External Error ± 29.5	1.94	2σ Confidence Limit	
			Analytical Error ± 23.3	1.0000	Error Magnification	
				22%	Spreading Factor	



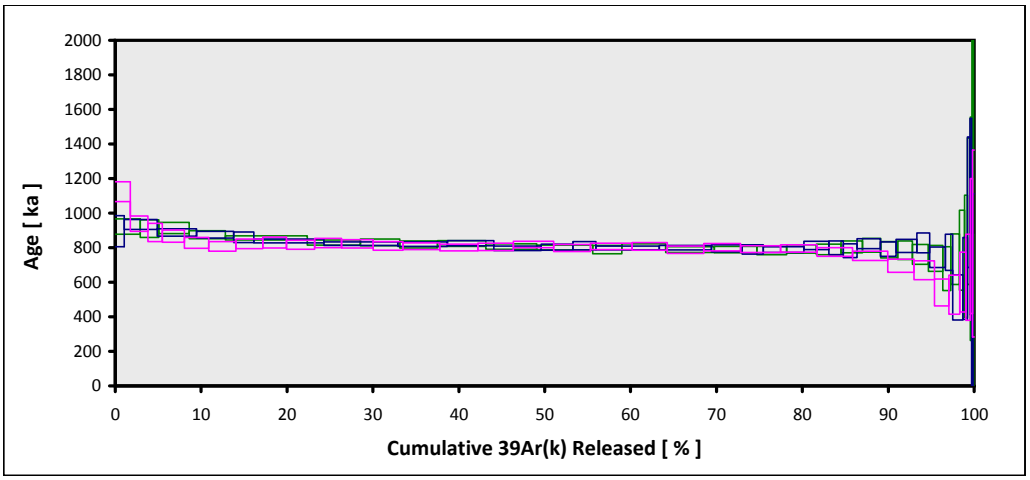


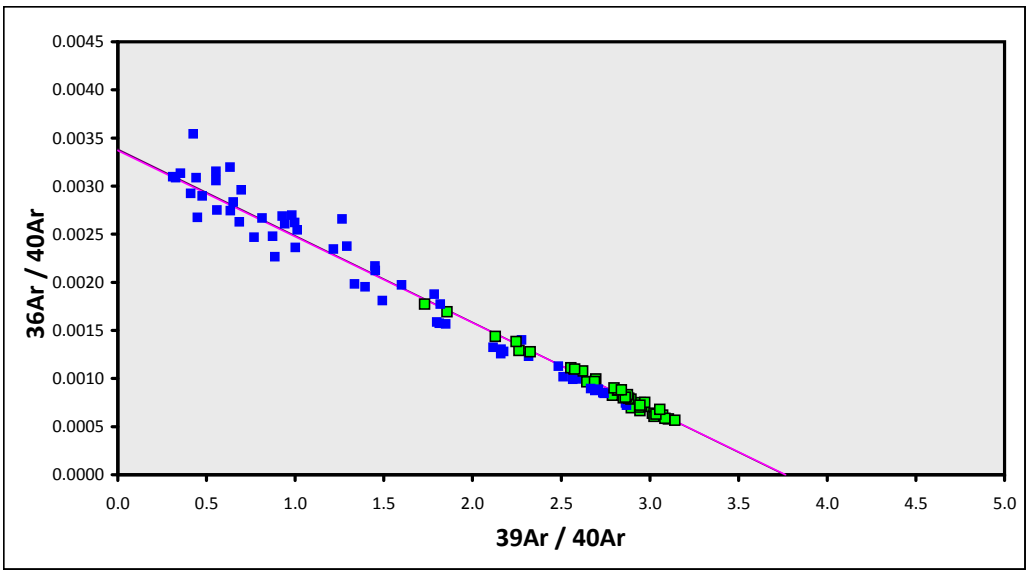
STACK > A23-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C28-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **A23-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C28-15)**
Position = **X: 0 | Y: 0 | Z/H: 51.99 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.43681 ± 0.00925**
FCT-NM J-value = **0.00166554 ± 0.00000163**
Air Shot 40Ar/36Ar = **304.0240 ± 0.5381**
Air Shot MDF = **0.99298163 ± 0.00071970 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **3.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = Undefined
Age Classification = Undefined
IGSN = Undefined
Rock Class = Undefined
Lithology = Undefined
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26597 ± 0.00106 (± 0.40%)	**800.9 ± 3.6 (± 0.44%)**	0.89 68%	53.19 41	0.206 ± 0.055
		Full External Error ± 18.4		1.45	2σ Confidence Limit	
		Analytical Error ± 3.2		1.0000	Error Magnification	
Total Fusion Age		0.26936 ± 0.00107 (± 0.40%)	**811.1 ± 3.6 (± 0.44%)**		98	0.208 ± 0.000
		Full External Error ± 18.7				
		Analytical Error ± 3.2				
Normal Isochron	**296.87 ± 10.07 (± 3.39%)**	0.26532 ± 0.00311 (± 1.17%)	**798.9 ± 9.5 (± 1.19%)**	0.87 70%	53.19 41	
		Full External Error ± 20.4		1.45	2σ Confidence Limit	
		Analytical Error ± 9.4		1.0000	Error Magnification	
Inverse Isochron	**296.92 ± 9.98 (± 3.36%)**	0.26560 ± 0.00305 (± 1.15%)	**799.7 ± 9.3 (± 1.17%)**	0.90 64%	53.19 41	
		Full External Error ± 20.3		1.45	2σ Confidence Limit	
		Analytical Error ± 9.2		1.0000	Error Magnification	
				37%	Spreading Factor	



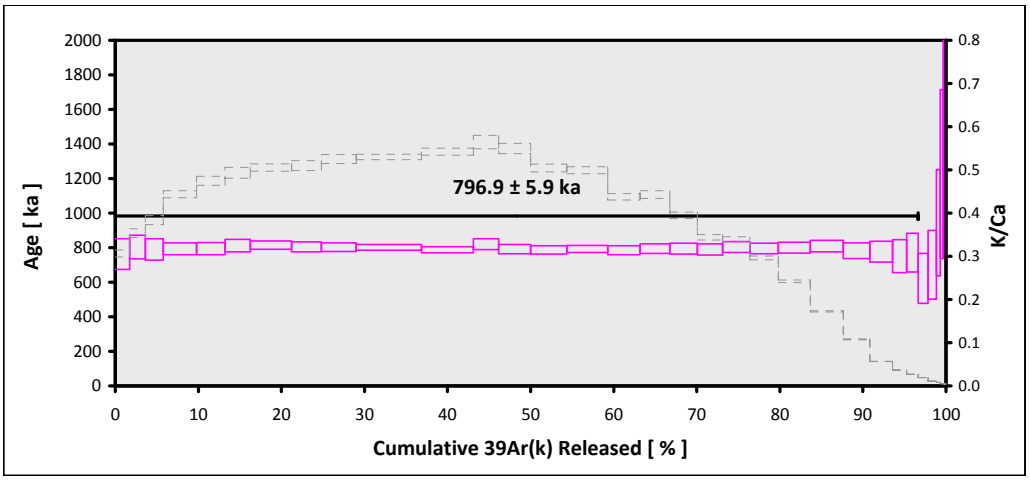


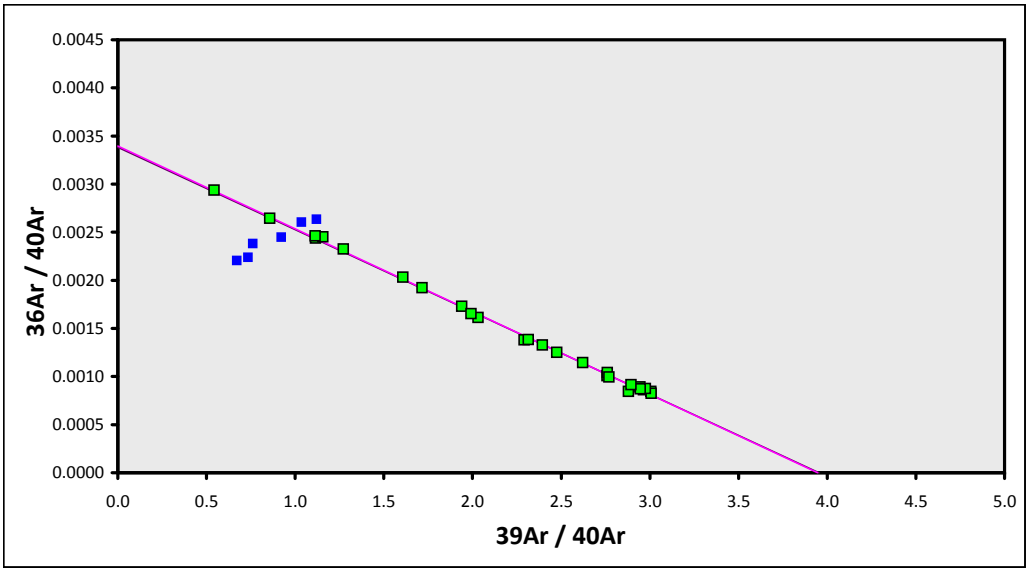
EXP#15D21518 > A27-AR-1 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C20-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A27-AR-1**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C20-15)**
Position = **X: 0 | Y: 0 | Z/H: 36.57 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.01873 ± 0.00929**
FCT-NM J-value = **0.00174275 ± 0.00000180**
Air Shot 40Ar/36Ar = **302.9780 ± 0.6120**
Air Shot MDF = **0.99382161 ± 0.00076028 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25292 ± 0.00181 (± 0.72%)	**796.9 ± 5.9 (± 0.75%)**	0.48	96.66	0.043 ± 0.019
		Full External Error ± 18.9		99%	27	
		Analytical Error ± 5.7		1.55	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25299 ± 0.00236 (± 0.93%)	**797.1 ± 7.6 (± 0.95%)**		33	0.136 ± 0.000
		Full External Error ± 19.5				
		Analytical Error ± 7.4				
Normal Isochron	**294.62 ± 3.55 (± 1.21%)**	0.25319 ± 0.00259 (± 1.02%)	**797.7 ± 8.3 (± 1.04%)**	0.48	96.66	
		Full External Error ± 19.8		99%	27	
		Analytical Error ± 8.2		1.57	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**294.55 ± 3.57 (± 1.21%)**	0.25343 ± 0.00260 (± 1.03%)	**798.5 ± 8.4 (± 1.05%)**	0.49	96.66	
		Full External Error ± 19.9		98%	27	
		Analytical Error ± 8.2		1.57	2σ Confidence Limit	
				1.0000	Error Magnification	
				62%	Spreading Factor	



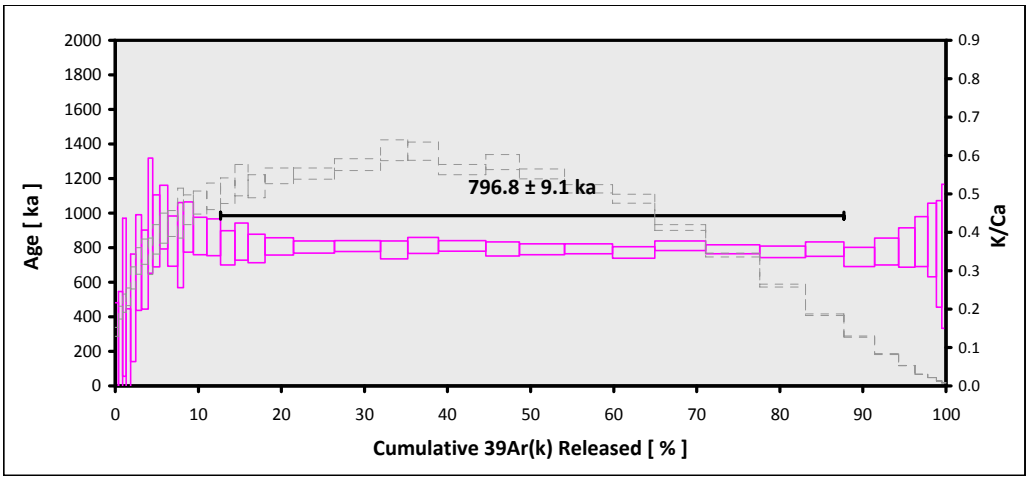


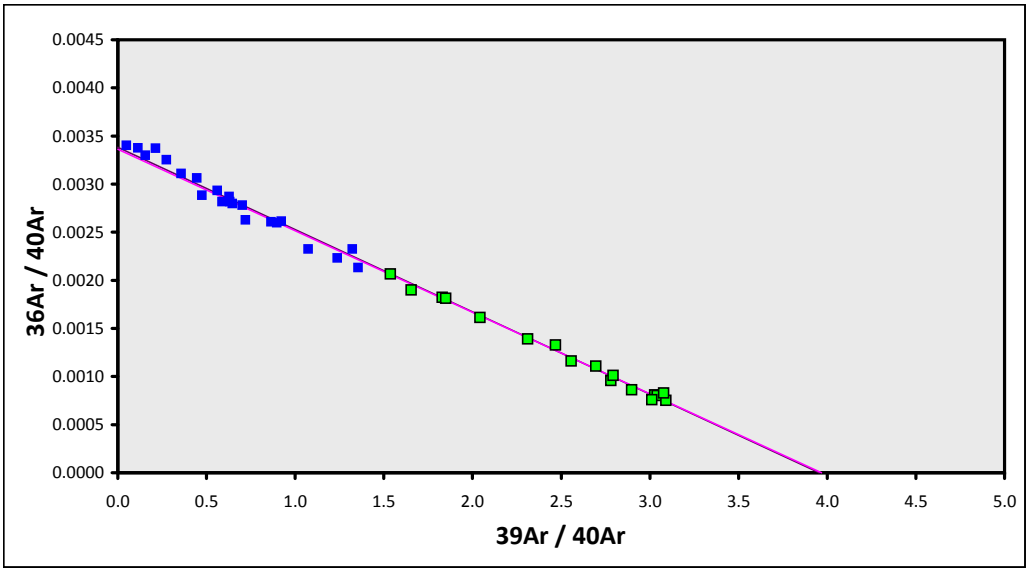
EXP#14D35461 > A27-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A27-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 3.91 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.01497 ± 0.00947**
FCT-NM J-value = **0.00174348 ± 0.00000183**
Air Shot 40Ar/36Ar = **303.2650 ± 0.4943**
Air Shot MDF = **0.99359056 ± 0.00070160 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25277 ± 0.00285	**796.8 ± 9.1**	0.53	75.05	0.278 ± 0.061
		± 1.13%	**± 1.15%**	94%	17	
		Full External Error	± 20.2	1.71	2σ Confidence Limit	
		Analytical Error	± 9.0	1.0000	Error Magnification	
Total Fusion Age		0.24950 ± 0.00379	**786.4 ± 12.1**		39	0.191 ± 0.001
		± 1.52%	**± 1.53%**			
		Full External Error	± 21.5			
		Analytical Error	± 11.9			
Normal Isochron	**298.02 ± 12.87**	0.25130 ± 0.00608	**792.1 ± 19.2**	0.56	75.05	
	± 4.32%	± 2.42%	**± 2.43%**	91%	17	
		Full External Error	± 26.3	1.73	2σ Confidence Limit	
		Analytical Error	± 19.2	1.0000	Error Magnification	
Inverse Isochron	**297.46 ± 12.86**	0.25198 ± 0.00604	**794.3 ± 19.1**	0.55	75.05	
	± 4.32%	± 2.40%	**± 2.41%**	91%	17	
		Full External Error	± 26.2	1.73	2σ Confidence Limit	
		Analytical Error	± 19.0	1.0000	Error Magnification	
				39%	Spreading Factor	



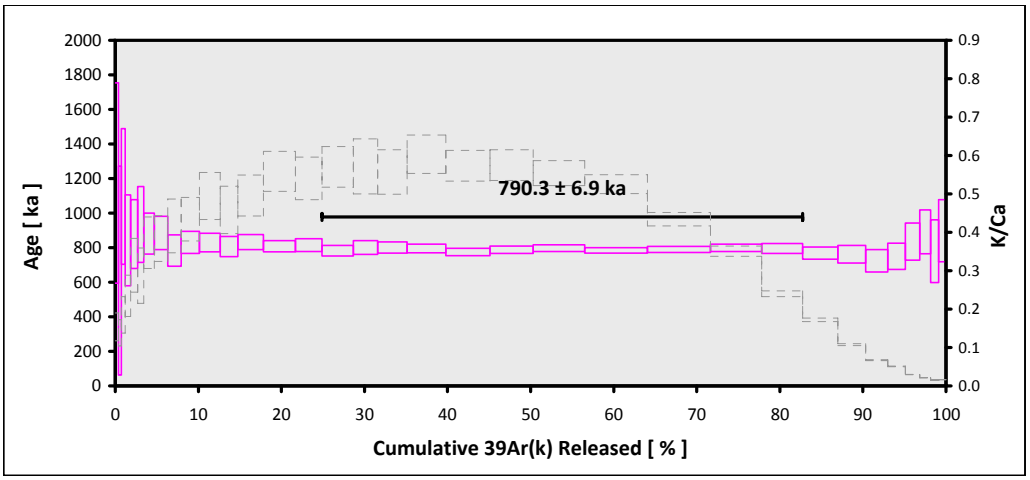


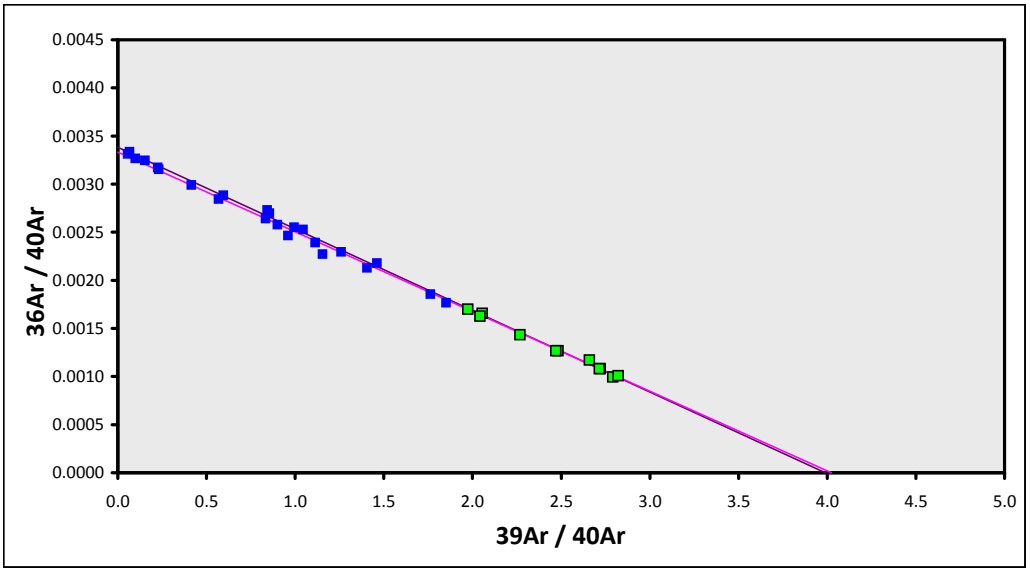
EXP#15D05627 > A27-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A27-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 3.91 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.01497 ± 0.00947**
FCT-NM J-value = **0.00174348 ± 0.00000183**
Air Shot 40Ar/36Ar = **303.4860 ± 0.5402**
Air Shot MDF = **0.99341294 ± 0.00072243 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25071 ± 0.00214 (± 0.85%)	**790.3 ± 6.9 (± 0.88%)**	0.49	57.88	0.332 ± 0.075
		Full External Error ± 19.1		89%	11	
		Analytical Error ± 6.7		1.89	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25422 ± 0.00278 (± 1.09%)	**801.3 ± 8.9 (± 1.11%)**		34	0.178 ± 0.001
		Full External Error ± 20.2				
		Analytical Error ± 8.8				
Normal Isochron	**300.14 ± 14.11 (± 4.70%)**	0.24839 ± 0.00706 (± 2.84%)	**783.0 ± 22.3 (± 2.85%)**	0.51	57.88	
		Full External Error ± 28.5		87%	11	
		Analytical Error ± 22.2		1.94	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**300.12 ± 14.14 (± 4.71%)**	0.24852 ± 0.00705 (± 2.84%)	**783.3 ± 22.3 (± 2.84%)**	0.50	57.88	
		Full External Error ± 28.4		88%	11	
		Analytical Error ± 22.2		1.94	2σ Confidence Limit	
				1.0000	Error Magnification	
				21%	Spreading Factor	



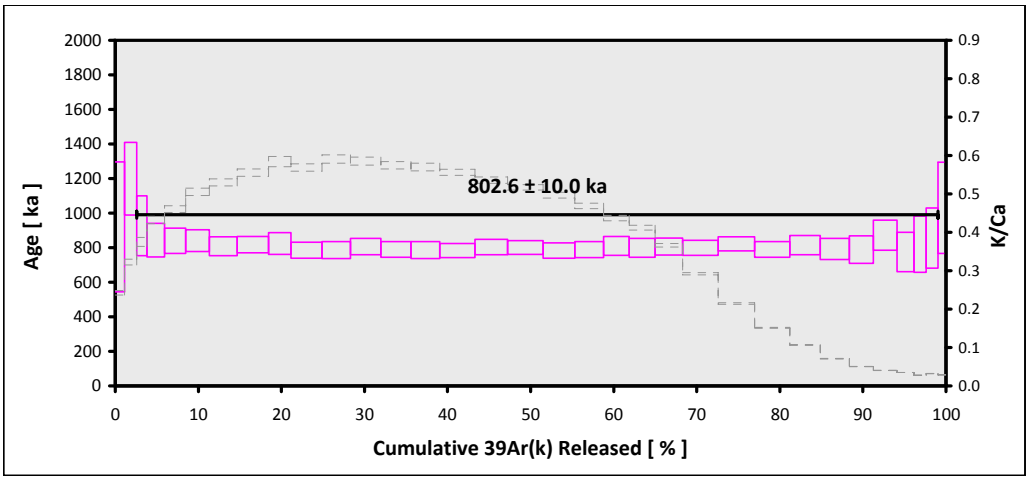


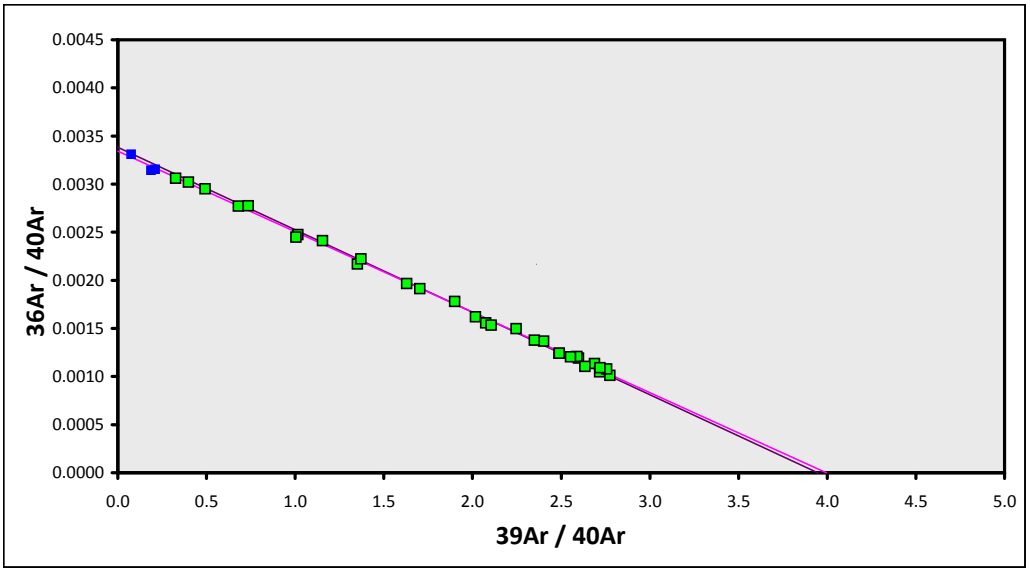
EXP#15D19668 > A27-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C19-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A27-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C19-15)**
Position = **X: 0 | Y: 0 | Z/H: 34.58 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.97259 ± 0.00924**
FCT-NM J-value = **0.00175171 ± 0.00000180**
Air Shot 40Ar/36Ar = **302.7790 ± 0.5934**
Air Shot MDF = **0.99398207 ± 0.00075135 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25345 ± 0.00311	**802.6 ± 10.0**	0.52	96.48	0.043 ± 0.014
		± 1.23%	**± 1.25%**	99%	30	
		Full External Error	± 20.7	1.53	2σ Confidence Limit	
		Analytical Error	± 9.9	1.0000	Error Magnification	
Total Fusion Age		0.25768 ± 0.00378	**816.1 ± 12.1**		33	0.166 ± 0.000
		± 1.47%	**± 1.48%**			
		Full External Error	± 22.0			
		Analytical Error	± 12.0			
Normal Isochron	**299.19 ± 3.34**	0.25011 ± 0.00423	**792.1 ± 13.5**	0.35	96.48	
	± 1.12%	± 1.69%	**± 1.70%**	100%	30	
		Full External Error	± 22.4	1.53	2σ Confidence Limit	
		Analytical Error	± 13.4	1.0000	Error Magnification	
Inverse Isochron	**299.22 ± 3.35**	0.25031 ± 0.00423	**792.7 ± 13.5**	0.36	96.48	
	± 1.12%	± 1.69%	**± 1.70%**	100%	30	
		Full External Error	± 22.4	1.53	2σ Confidence Limit	
		Analytical Error	± 13.4	1.0000	Error Magnification	
				61%	Spreading Factor	



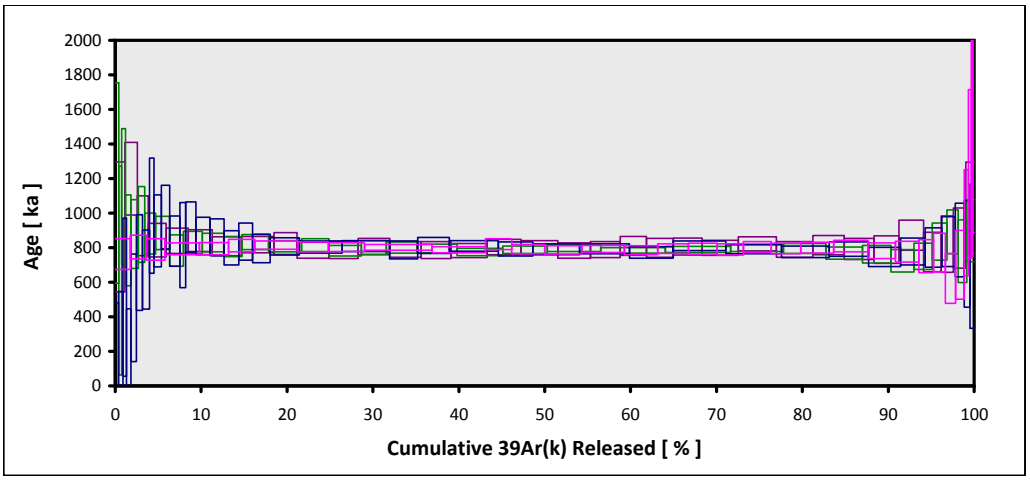


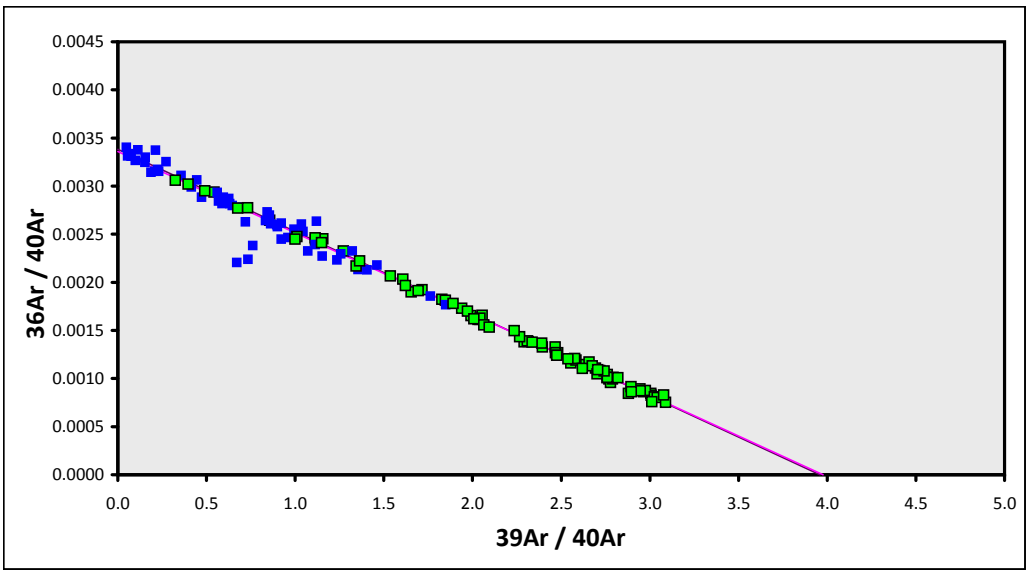
STACK > A27-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C20-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **A27-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C20-15)**
Position = **X: 0 | Y: 0 | Z/H: 36.57 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.01873 ± 0.00929**
FCT-NM J-value = **0.00174275 ± 0.00000180**
Air Shot 40Ar/36Ar = **302.9780 ± 0.6120**
Air Shot MDF = **0.99382161 ± 0.00076028 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25255 ± 0.00116 (± 0.46%)	**795.7 ± 4.0 (± 0.50%)**	0.54	79.89	0.044 ± 0.010
		Full External Error ± 18.4		100%	85	
		Analytical Error ± 3.6		1.31	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25396 ± 0.00162 (± 0.64%)	**800.2 ± 5.4 (± 0.67%)**		139	0.166 ± 0.000
		Full External Error ± 18.8				
		Analytical Error ± 5.1				
Normal Isochron	**297.52 ± 2.28 (± 0.77%)**	0.25125 ± 0.00169 (± 0.67%)	**791.6 ± 5.6 (± 0.70%)**	0.51	79.89	
		Full External Error ± 18.7		100%	85	
		Analytical Error ± 5.3		1.31	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**297.55 ± 2.29 (± 0.77%)**	0.25146 ± 0.00169 (± 0.67%)	**792.3 ± 5.6 (± 0.70%)**	0.51	79.89	
		Full External Error ± 18.7		100%	85	
		Analytical Error ± 5.3		1.31	2σ Confidence Limit	
				1.0000	Error Magnification	
				70%	Spreading Factor	



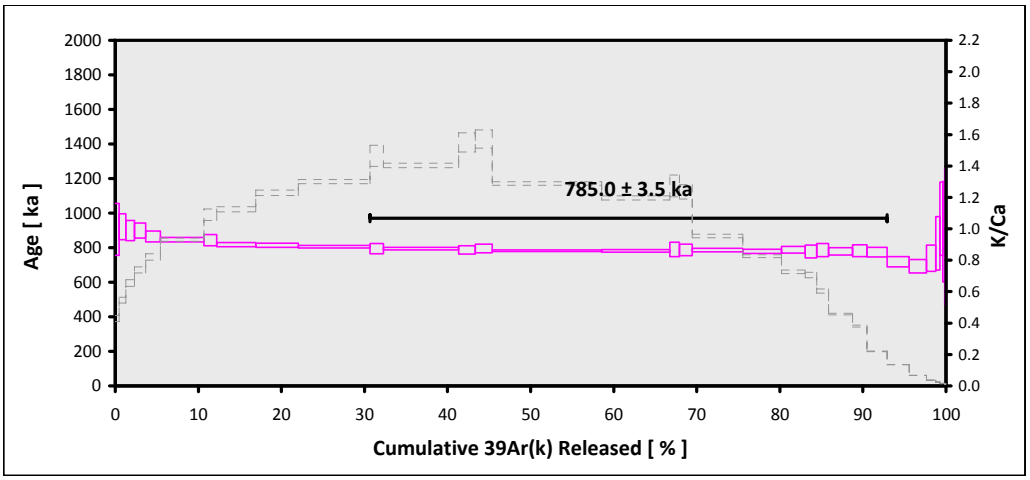


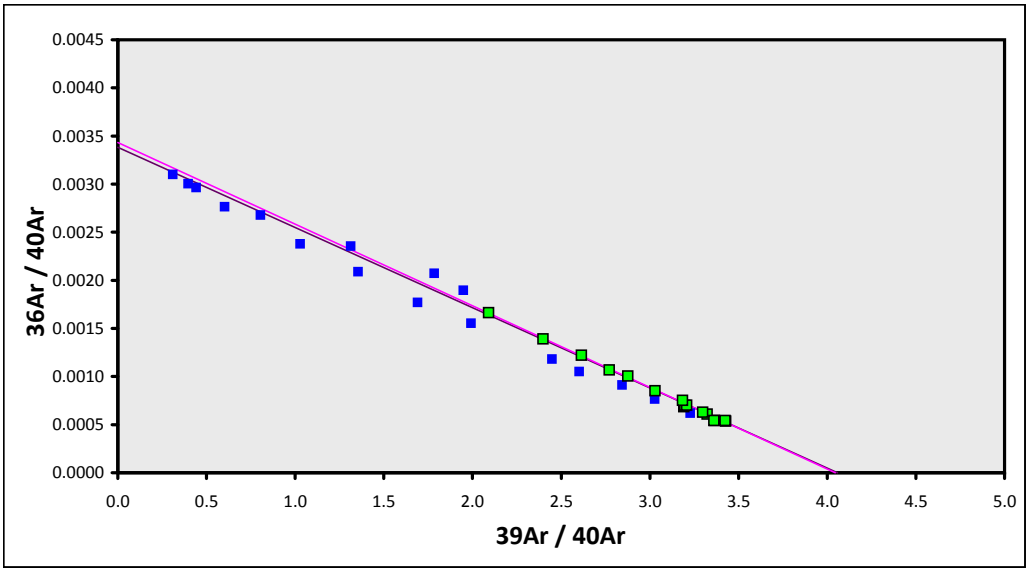
EXP#15D20327 > A28-AR-1 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C18-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A28-AR-1**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C18-15)**
Position = **X: 0 | Y: 0 | Z/H: 32.24 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.92061 ± 0.00928**
FCT-NM J-value = **0.00176192 ± 0.00000183**
Air Shot 40Ar/36Ar = **302.6230 ± 0.5962**
Air Shot MDF = **0.99410801 ± 0.00075330 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24644 ± 0.00098 (± 0.40%)	**785.0 ± 3.5 (± 0.45%)**	0.81	62.23	0.369 ± 0.144
		Full External Error ± 18.1		67%	16	
		Analytical Error ± 3.1		1.73	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25014 ± 0.00113 (± 0.45%)	**796.8 ± 4.0 (± 0.50%)**		33	0.396 ± 0.001
		Full External Error ± 18.4				
		Analytical Error ± 3.6				
Normal Isochron	**291.47 ± 10.21 (± 3.50%)**	0.24709 ± 0.00219 (± 0.89%)	**787.1 ± 7.2 (± 0.91%)**	0.77	62.23	
		Full External Error ± 19.2		70%	16	
		Analytical Error ± 7.0		1.76	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**291.38 ± 10.24 (± 3.51%)**	0.24724 ± 0.00219 (± 0.89%)	**787.6 ± 7.2 (± 0.91%)**	0.82	62.23	
		Full External Error ± 19.2		65%	16	
		Analytical Error ± 7.0		1.76	2σ Confidence Limit	
				1.0000	Error Magnification	
				33%	Spreading Factor	



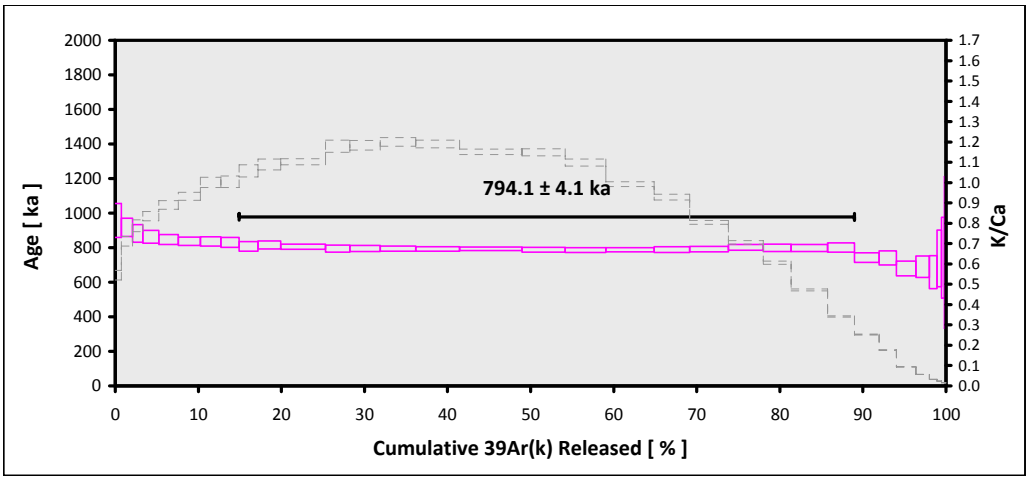


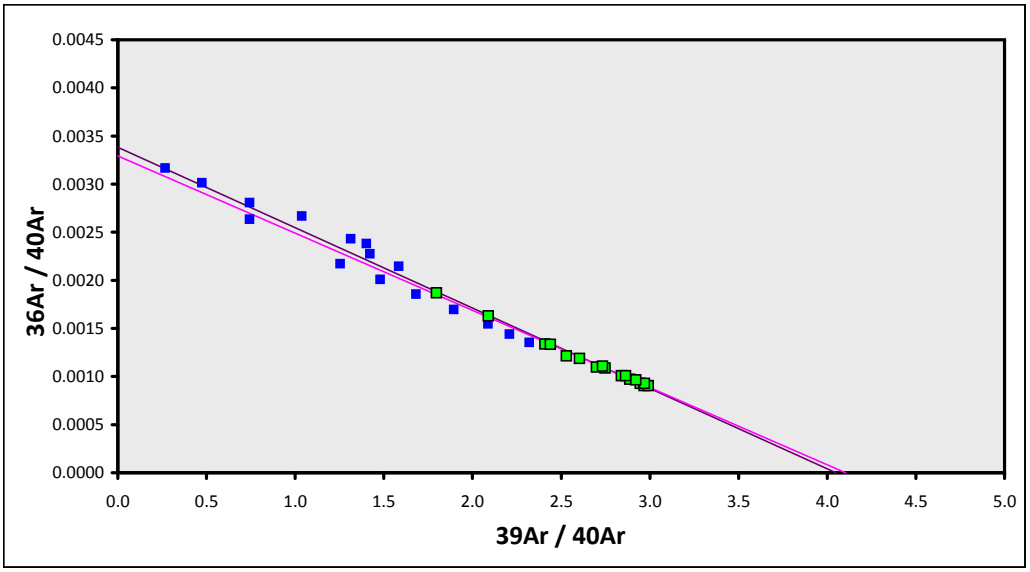
EXP#15D20373 > A28-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C15-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A28-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C15-15)**
Position = **X: 0 | Y: 0 | Z/H: 28.17 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.83608 ± 0.00928**
FCT-NM J-value = **0.00177877 ± 0.00000187**
Air Shot 40Ar/36Ar = **302.6990 ± 0.5933**
Air Shot MDF = **0.99404664 ± 0.00075155 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24692 ± 0.00118 (± 0.48%)	**794.1 ± 4.1 (± 0.52%)**	0.78	74.07	0.567 ± 0.139
		Full External Error ± 18.4		70%	17	
		Analytical Error ± 3.8		1.71	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.24739 ± 0.00134 (± 0.54%)	**795.6 ± 4.6 (± 0.58%)**		33	0.375 ± 0.001
		Full External Error ± 18.5				
		Analytical Error ± 4.3				
Normal Isochron	**303.49 ± 8.68 (± 2.86%)**	0.24375 ± 0.00358 (± 1.47%)	**783.9 ± 11.6 (± 1.48%)**	0.58	74.07	
		Full External Error ± 21.2		89%	17	
		Analytical Error ± 11.5		1.73	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**303.63 ± 8.75 (± 2.88%)**	0.24376 ± 0.00360 (± 1.48%)	**783.9 ± 11.7 (± 1.49%)**	0.60	74.07	
		Full External Error ± 21.2		88%	17	
		Analytical Error ± 11.6		1.73	2σ Confidence Limit	
				1.0000	Error Magnification	
				29%	Spreading Factor	



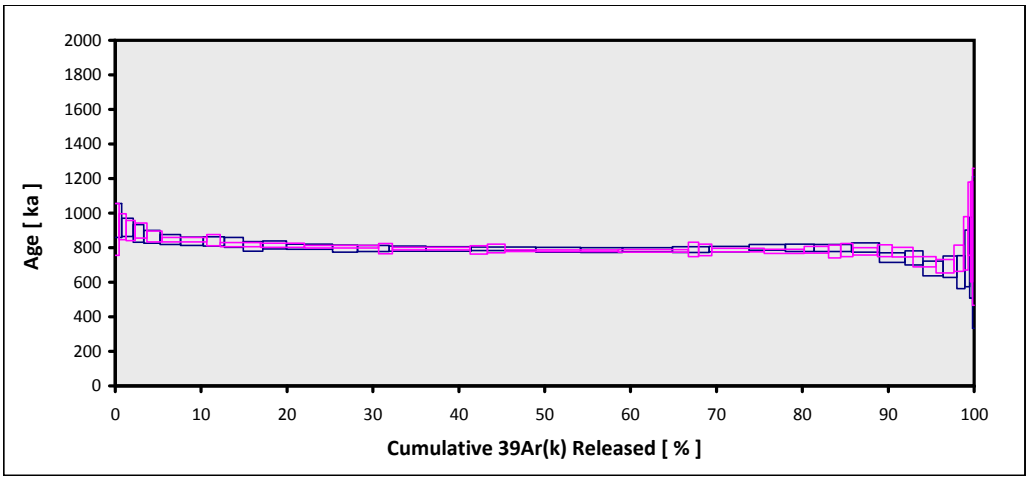


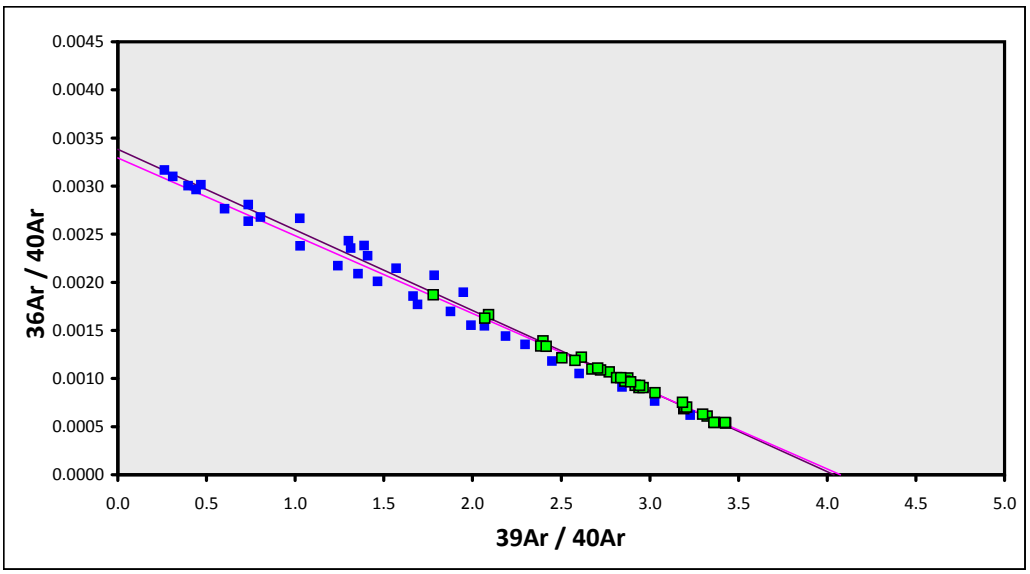
STACK > 15D20327 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C18-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **15D20327**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C18-15)**
Position = **X: 0 | Y: 0 | Z/H: 32.24 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.92061 ± 0.00928**
FCT-NM J-value = **0.00176192 ± 0.00000183**
Air Shot 40Ar/36Ar = **302.6230 ± 0.5962**
Air Shot MDF = **0.99410801 ± 0.00075330 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = Undefined
Age Classification = Undefined
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24759 ± 0.00083 (± 0.33%)	**788.7 ± 3.1 (± 0.39%)**	1.19	67.86	0.439 ± 0.104
		Full External Error ± 18.1		21%	33	
		Analytical Error ± 2.6		1.50	2σ Confidence Limit	
				1.0927	Error Magnification	
Total Fusion Age		0.24996 ± 0.00087 (± 0.35%)	**796.2 ± 3.2 (± 0.41%)**		66	0.386 ± 0.001
		Full External Error ± 18.3				
		Analytical Error ± 2.8				
Normal Isochron	**303.31 ± 5.11 (± 1.69%)**	0.24535 ± 0.00159 (± 0.65%)	**781.5 ± 5.3 (± 0.68%)**	0.89	67.86	
		Full External Error ± 18.4		64%	33	
		Analytical Error ± 5.1		1.51	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**303.57 ± 5.14 (± 1.69%)**	0.24540 ± 0.00160 (± 0.65%)	**781.7 ± 5.4 (± 0.68%)**	0.91	67.86	
		Full External Error ± 18.4		61%	33	
		Analytical Error ± 5.1		1.51	2σ Confidence Limit	
				1.0000	Error Magnification	
				40%	Spreading Factor	



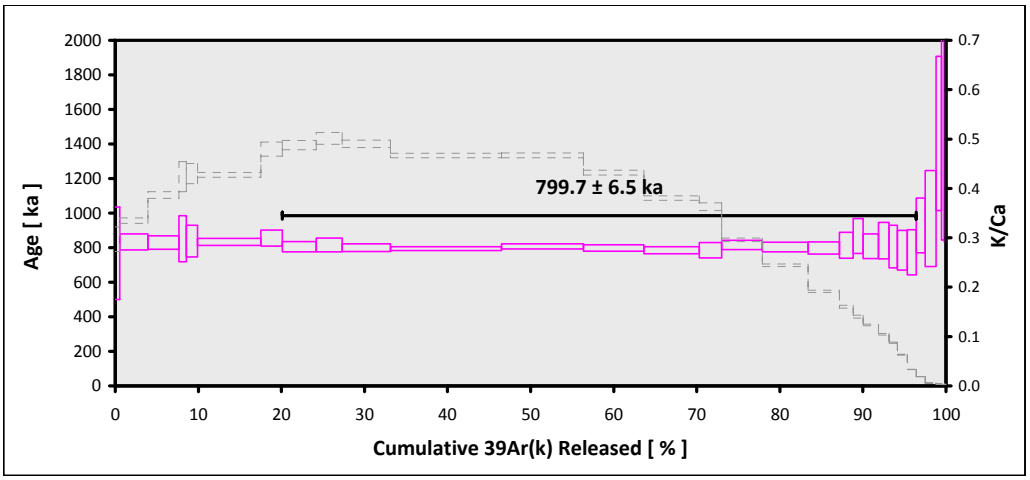


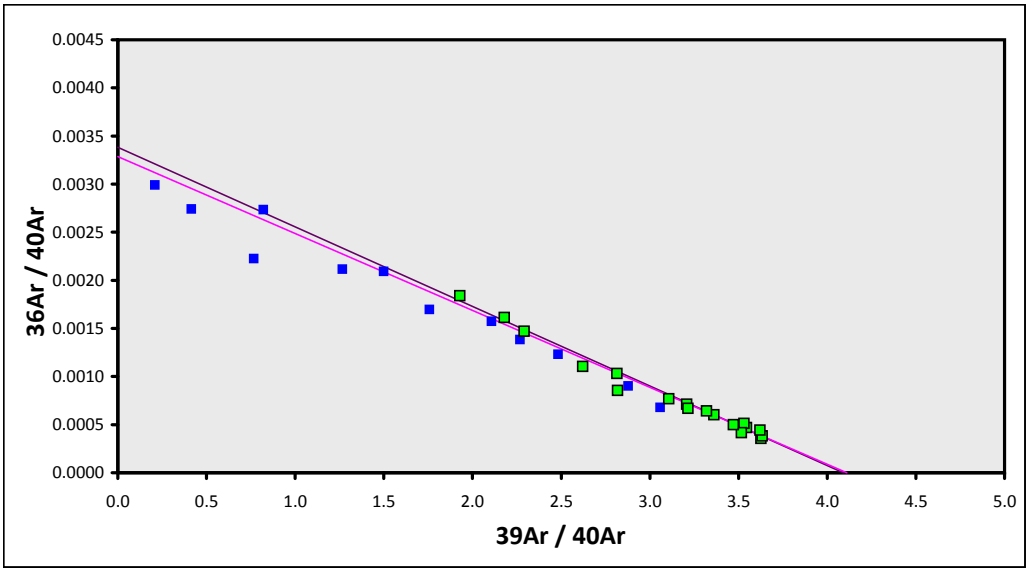
EXP#15D20450 > A29-AR-1 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C11-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A29-AR-1**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C11-15)**
Position = **X: 0 | Y: 0 | Z/H: 19.94 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.68797 ± 0.00930**
FCT-NM J-value = **0.00180910 ± 0.00000194**
Air Shot 40Ar/36Ar = **302.6150 ± 0.5962**
Air Shot MDF = **0.99411447 ± 0.00075332 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24450 ± 0.00190 (± 0.78%)	**799.7 ± 6.5 (± 0.81%)**	0.56	76.32	0.069 ± 0.038
		Full External Error ± 19.2		92%	18	
		Analytical Error ± 6.2		1.69	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25088 ± 0.00272 (± 1.08%)	**820.6 ± 9.1 (± 1.10%)**		30	0.104 ± 0.000
		Full External Error ± 20.6				
		Analytical Error ± 8.9				
Normal Isochron	**302.47 ± 26.97 (± 8.92%)**	0.24301 ± 0.00434 (± 1.78%)	**794.8 ± 14.3 (± 1.80%)**	0.53	76.32	
		Full External Error ± 22.9		93%	18	
		Analytical Error ± 14.2		1.71	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**304.21 ± 27.49 (± 9.04%)**	0.24326 ± 0.00434 (± 1.78%)	**795.6 ± 14.3 (± 1.80%)**	0.57	76.32	
		Full External Error ± 23.0		91%	18	
		Analytical Error ± 14.2		1.71	2σ Confidence Limit	
				1.0000	Error Magnification	
				41%	Spreading Factor	



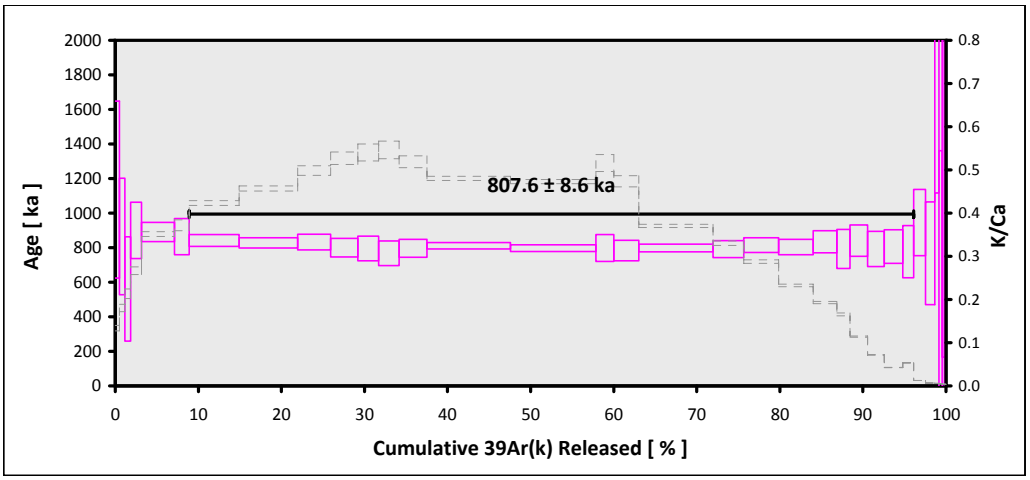


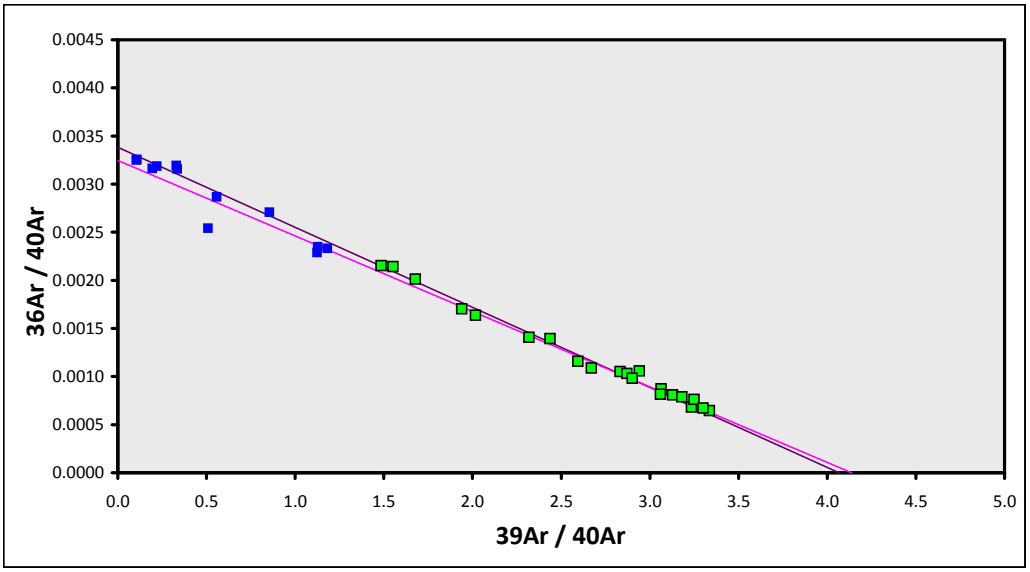
EXP#15D20492 > A29-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C10-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A29-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C10-15)**
Position = **X: 0 | Y: 0 | Z/H: 17.62 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.65174 ± 0.00926**
FCT-NM J-value = **0.00181667 ± 0.00000194**
Air Shot 40Ar/36Ar = **302.7110 ± 0.5933**
Air Shot MDF = **0.99403695 ± 0.00075152 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24590 ± 0.00257	**807.6 ± 8.6**	0.69	87.21	0.066 ± 0.028
		± 1.05%	**± 1.07%**	84%	21	
		Full External Error	± 20.2	1.63	2σ Confidence Limit	
		Analytical Error	± 8.4	1.0000	Error Magnification	
Total Fusion Age		0.24977 ± 0.00369	**820.3 ± 12.2**		33	0.107 ± 0.000
		± 1.48%	**± 1.49%**			
		Full External Error	± 22.2			
		Analytical Error	± 12.1			
Normal Isochron	**307.47 ± 11.28**	0.24153 ± 0.00464	**793.3 ± 15.3**	0.47	87.21	
	± 3.67%	± 1.92%	**± 1.93%**	97%	21	
		Full External Error	± 23.6	1.65	2σ Confidence Limit	
		Analytical Error	± 15.2	1.0000	Error Magnification	
Inverse Isochron	**307.96 ± 11.37**	0.24170 ± 0.00466	**793.9 ± 15.4**	0.45	87.21	
	± 3.69%	± 1.93%	**± 1.94%**	98%	21	
		Full External Error	± 23.6	1.65	2σ Confidence Limit	
		Analytical Error	± 15.3	1.0000	Error Magnification	
				45%	Spreading Factor	



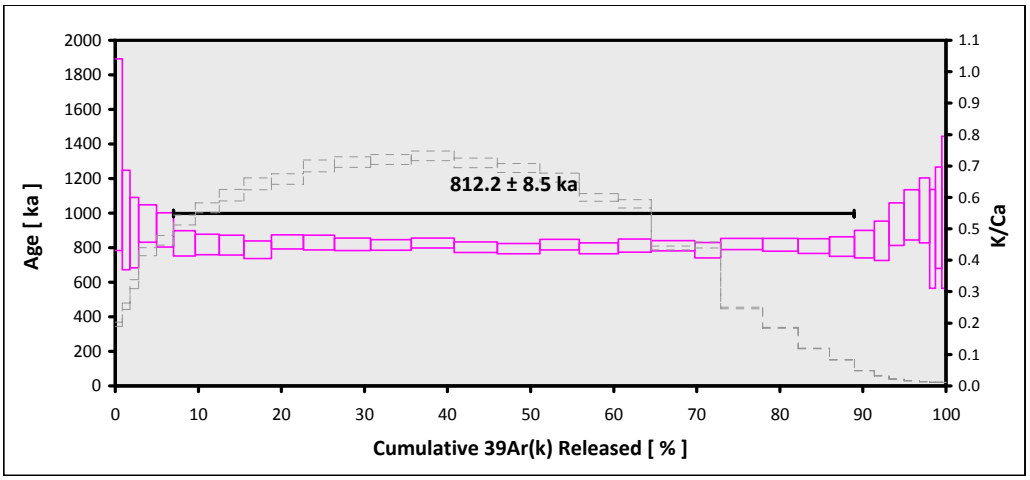


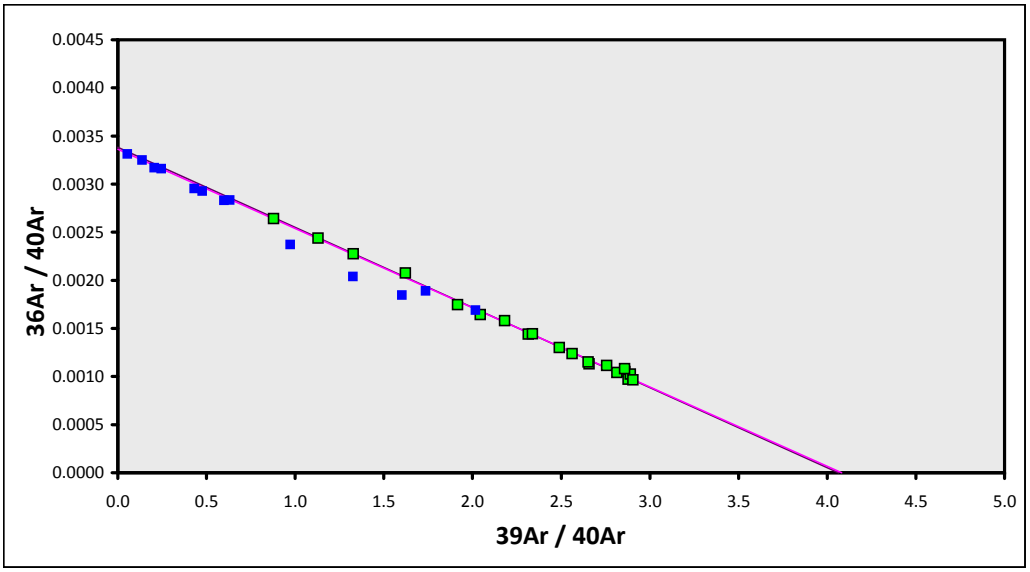
EXP#15D20538 > A29-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C8-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **A29-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C8-15)**
Position = **X: 0 | Y: 0 | Z/H: 14.78 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.61068 ± 0.00930**
FCT-NM J-value = **0.00182534 ± 0.00000197**
Air Shot 40Ar/36Ar = **302.6650 ± 0.6114**
Air Shot MDF = **0.99407409 ± 0.00076106 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24611 ± 0.00251 (± 1.02%)	**812.2 ± 8.5 (± 1.04%)**	0.47	81.96	0.124 ± 0.042
		Full External Error ± 20.2		97%	20	
		Analytical Error ± 8.3		1.65	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25294 ± 0.00350 (± 1.38%)	**834.7 ± 11.7 (± 1.40%)**		33	0.125 ± 0.000
		Full External Error ± 22.2				
		Analytical Error ± 11.5				
Normal Isochron	**297.52 ± 5.71 (± 1.92%)**	0.24467 ± 0.00416 (± 1.70%)	**807.4 ± 13.8 (± 1.71%)**	0.48	81.96	
		Full External Error ± 22.9		97%	20	
		Analytical Error ± 13.7		1.67	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**297.38 ± 5.73 (± 1.93%)**	0.24502 ± 0.00417 (± 1.70%)	**808.6 ± 13.9 (± 1.72%)**	0.47	81.96	
		Full External Error ± 22.9		97%	20	
		Analytical Error ± 13.8		1.67	2σ Confidence Limit	
				1.0000	Error Magnification	
				50%	Spreading Factor	



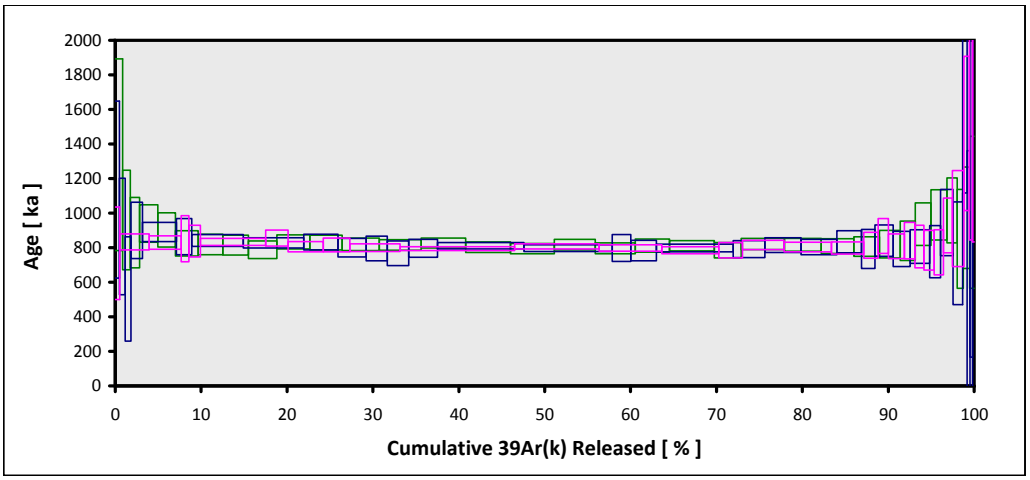


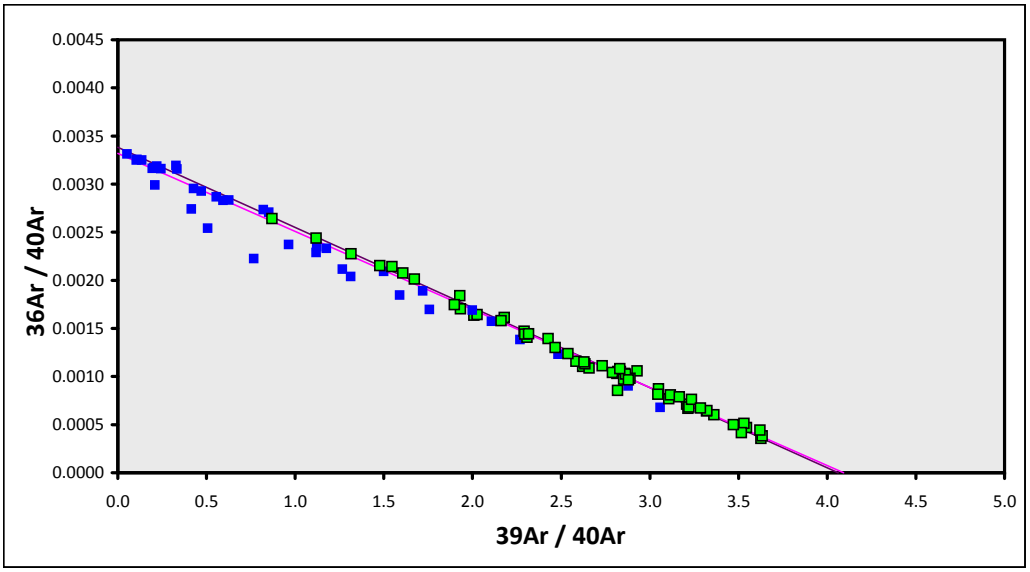
STACK > A29-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C11-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **A29-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C11-15)**
Position = **X: 0 | Y: 0 | Z/H: 19.94 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.68797 ± 0.00930**
FCT-NM J-value = **0.00180910 ± 0.00000194**
Air Shot 40Ar/36Ar = **302.6150 ± 0.5962**
Air Shot MDF = **0.99411447 ± 0.00075332 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24615 ± 0.00131	**805.1 ± 4.6**	0.67	81.79	0.075 ± 0.020
		± 0.53%	**± 0.57%**	98%	59	
		Full External Error	± 18.8	1.37	2σ Confidence Limit	
		Analytical Error	± 4.3	1.0000	Error Magnification	
Total Fusion Age		0.25235 ± 0.00193	**825.3 ± 6.6**		96	0.112 ± 0.000
		± 0.77%	**± 0.79%**			
		Full External Error	± 19.7			
		Analytical Error	± 6.3			
Normal Isochron	**301.30 ± 4.12**	0.24396 ± 0.00184	**797.9 ± 6.3**	0.53	81.79	
	± 1.37%	± 0.76%	**± 0.78%**	100%	59	
		Full External Error	± 19.1	1.37	2σ Confidence Limit	
		Analytical Error	± 6.0	1.0000	Error Magnification	
Inverse Isochron	**301.34 ± 4.15**	0.24435 ± 0.00186	**799.2 ± 6.3**	0.54	81.79	
	± 1.38%	± 0.76%	**± 0.79%**	100%	59	
		Full External Error	± 19.1	1.37	2σ Confidence Limit	
		Analytical Error	± 6.1	1.0000	Error Magnification	
				68%	Spreading Factor	



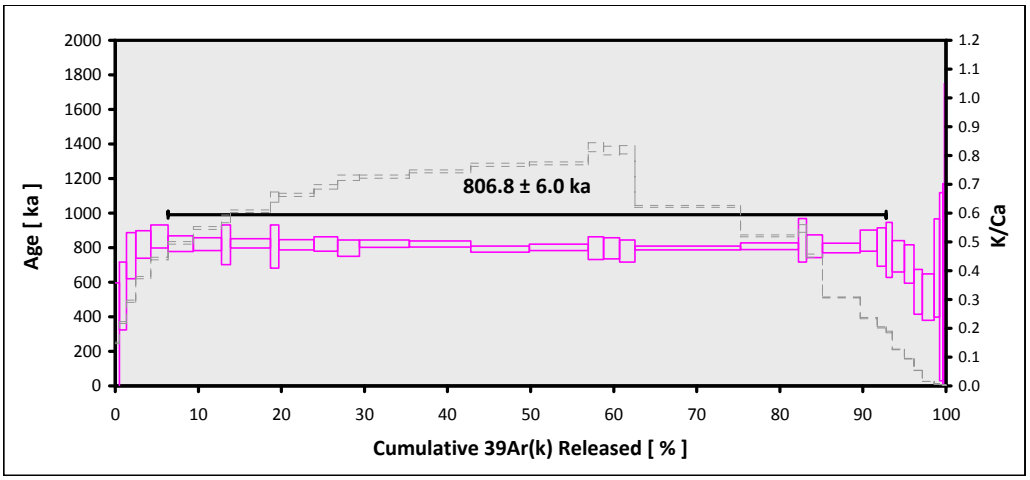


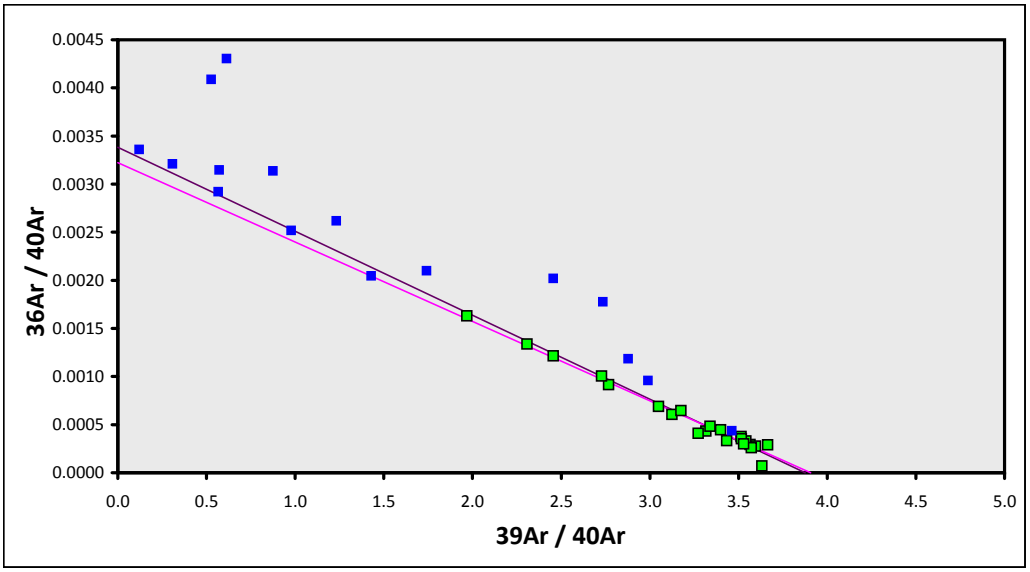
EXP#14D35931 > B1-AR-1 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A29-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B1-AR-1**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A29-14)**
Position = **X: 0 | Y: 0 | Z/H: 51.26 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.08695 ± 0.00972**
FCT-NM J-value = **0.00172967 ± 0.00000185**
Air Shot 40Ar/36Ar = **303.2300 ± 0.4943**
Air Shot MDF = **0.99361871 ± 0.00070168 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25801 ± 0.00183	**806.8 ± 6.0**	0.86	86.44	0.409 ± 0.086
		± 0.71%	**± 0.74%**	64%	22	
		Full External Error ± 19.2		1.62	2σ Confidence Limit	
		Analytical Error ± 5.7		1.0000	Error Magnification	
Total Fusion Age		0.25264 ± 0.00275	**790.0 ± 8.8**		38	0.158 ± 0.000
		± 1.09%	**± 1.11%**			
		Full External Error ± 19.9				
		Analytical Error ± 8.6				
Normal Isochron	**285.55 ± 19.45**	0.26085 ± 0.00328	**815.7 ± 10.4**	1.97	86.44	
No Convergence	**± 6.81%**	± 1.26%	**± 1.28%**	1%	22	
		Full External Error ± 21.2		1.63	2σ Confidence Limit	
		Analytical Error ± 10.3		1.4041	Error Magnification	
Inverse Isochron	**310.33 ± 14.71**	0.25600 ± 0.00277	**800.5 ± 8.8**	0.68	86.44	
	± 4.74%	± 1.08%	**± 1.10%**	85%	22	
		Full External Error ± 20.1		1.63	2σ Confidence Limit	
		Analytical Error ± 8.7		1.0000	Error Magnification	
				43%	Spreading Factor	



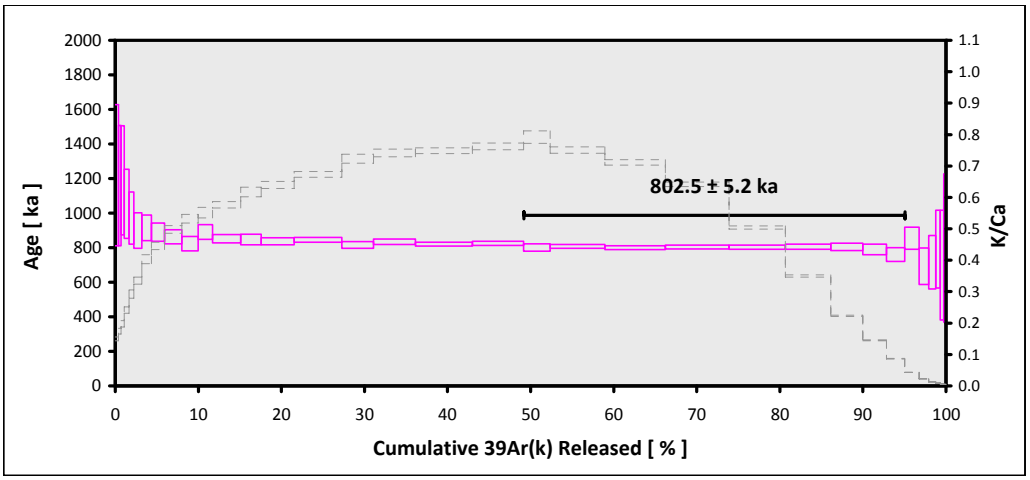


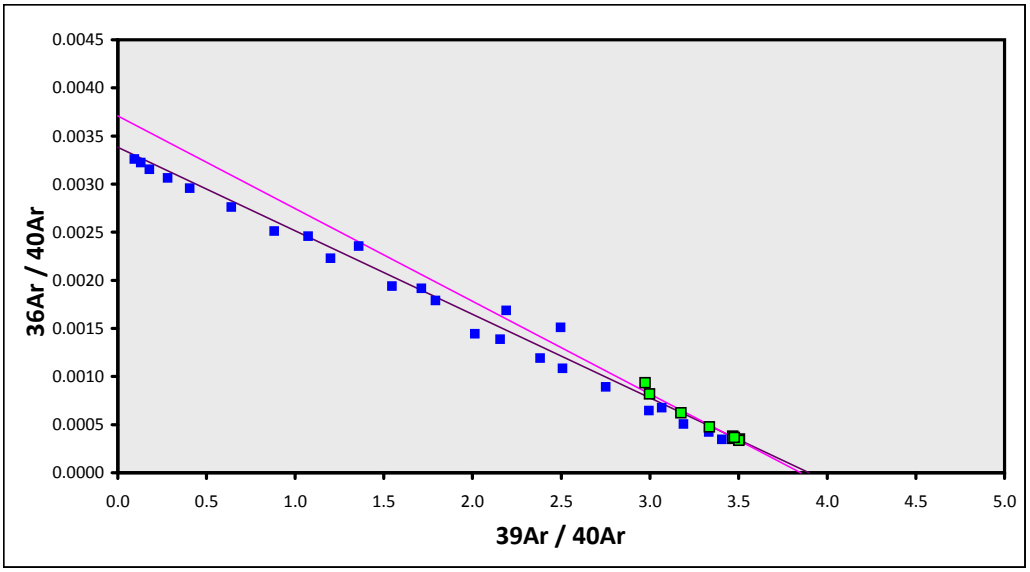
EXP#15D05436 > B1-AR-1 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A29-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B1-AR-1**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A29-14)**
Position = **X: 0 | Y: 0 | Z/H: 51.26 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.08695 ± 0.00972**
FCT-NM J-value = **0.00172967 ± 0.00000185**
Air Shot 40Ar/36Ar = **303.4480 ± 0.5523**
Air Shot MDF = **0.99344346 ± 0.00072842 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25663 ± 0.00156 (± 0.61%)	**802.5 ± 5.2 (± 0.64%)**	0.77	45.88	0.135 ± 0.075
		Full External Error ± 18.8		63%	9	
		Analytical Error ± 4.9		2.00	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.26377 ± 0.00179 (± 0.68%)	**824.8 ± 5.9 (± 0.71%)**		34	0.183 ± 0.000
		Full External Error ± 19.5				
		Analytical Error ± 5.6				
Normal Isochron	**265.46 ± 33.54 (± 12.63%)**	0.26007 ± 0.00420 (± 1.62%)	**813.3 ± 13.3 (± 1.63%)**	0.62	45.88	
		Full External Error ± 22.6		74%	9	
		Analytical Error ± 13.1		2.07	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**269.59 ± 34.56 (± 12.82%)**	0.25969 ± 0.00431 (± 1.66%)	**812.1 ± 13.6 (± 1.67%)**	0.59	45.88	
		Full External Error ± 22.8		76%	9	
		Analytical Error ± 13.5		2.07	2σ Confidence Limit	
				1.0000	Error Magnification	
				14%	Spreading Factor	



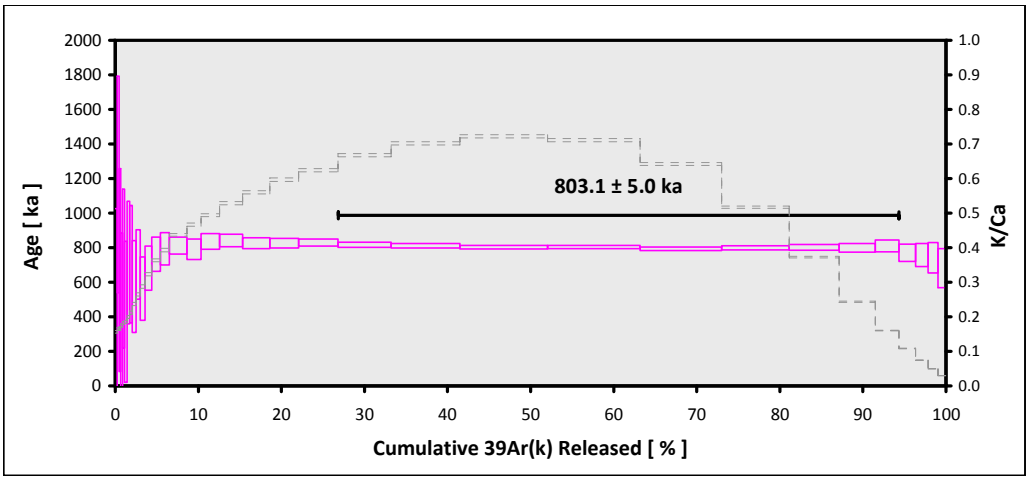


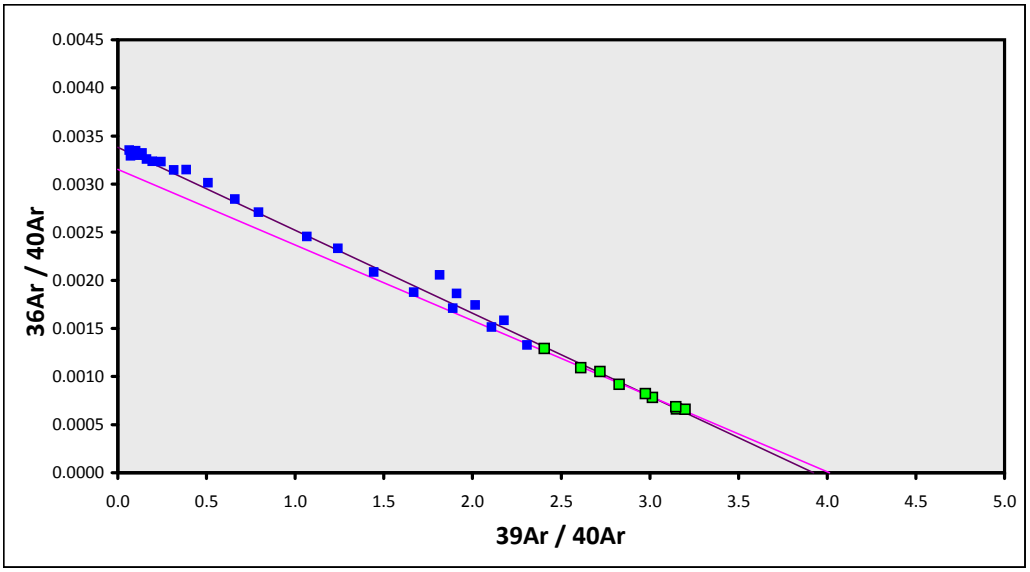
EXP#15D00916 > B1-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A28-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B1-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A28-14)**
Position = **X: 0 | Y: 0 | Z/H: 48.92 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.02060 ± 0.00974**
FCT-NM J-value = **0.00174239 ± 0.00000188**
Air Shot 40Ar/36Ar = **303.5780 ± 0.4979**
Air Shot MDF = **0.99333908 ± 0.00070226 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25494 ± 0.00149 (± 0.58%)	**803.1 ± 5.0 (± 0.62%)**	1.18	67.52	0.285 ± 0.128
		Full External Error ± 18.8		31%	9	
		Analytical Error ± 4.7		2.00	2σ Confidence Limit	
				1.0851	Error Magnification	
Total Fusion Age		0.25306 ± 0.00199 (± 0.79%)	**797.1 ± 6.5 (± 0.81%)**		34	0.341 ± 0.001
		Full External Error ± 19.1				
		Analytical Error ± 6.3				
Normal Isochron	**316.94 ± 19.43 (± 6.13%)**	0.24921 ± 0.00534 (± 2.14%)	**785.0 ± 16.9 (± 2.15%)**	0.59	67.52	
		Full External Error ± 24.5		77%	9	
		Analytical Error ± 16.8		2.07	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**317.10 ± 19.52 (± 6.16%)**	0.24922 ± 0.00535 (± 2.15%)	**785.1 ± 16.9 (± 2.16%)**	0.58	67.52	
		Full External Error ± 24.5		78%	9	
		Analytical Error ± 16.9		2.07	2σ Confidence Limit	
				1.0000	Error Magnification	
				20%	Spreading Factor	



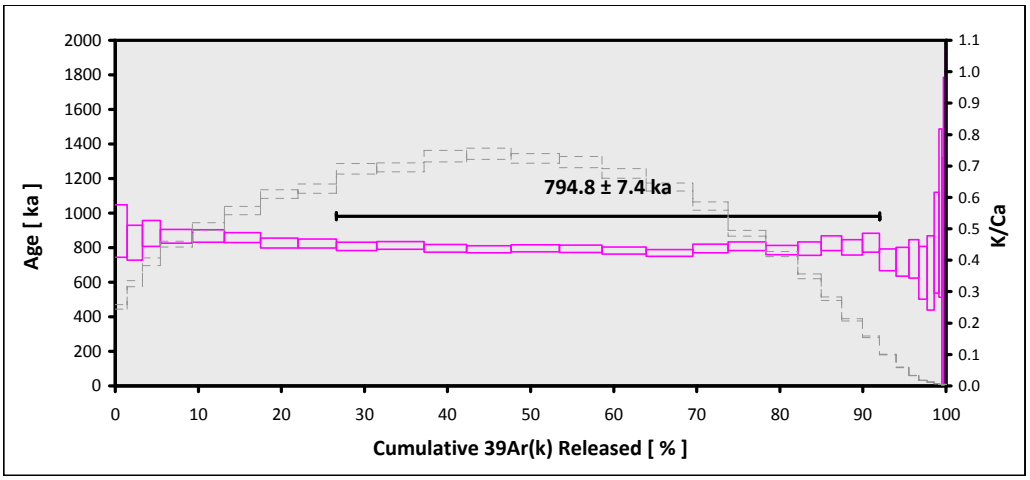


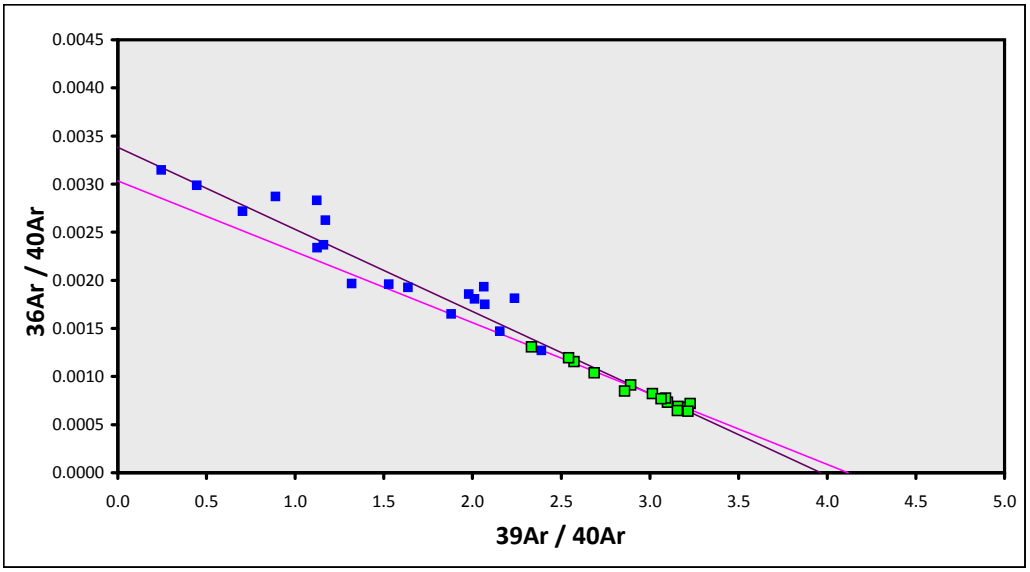
EXP#15D05912 > B1-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A28-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B1-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A28-14)**
Position = **X: 0 | Y: 0 | Z/H: 48.92 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.02060 ± 0.00974**
FCT-NM J-value = **0.00174239 ± 0.00000188**
Air Shot 40Ar/36Ar = **303.4850 ± 0.5372**
Air Shot MDF = **0.99341374 ± 0.00072098 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25230 ± 0.00229 (± 0.91%)	**794.8 ± 7.4 (± 0.93%)**	1.28	65.39	0.263 ± 0.087
		Full External Error ± 19.4		21%	15	
		Analytical Error ± 7.2		1.76	2σ Confidence Limit	
				1.1329	Error Magnification	
Total Fusion Age		0.25573 ± 0.00248 (± 0.97%)	**805.6 ± 8.0 (± 0.99%)**		34	0.152 ± 0.000
		Full External Error ± 19.9				
		Analytical Error ± 7.8				
Normal Isochron	**332.07 ± 26.56 (± 8.00%)**	0.24181 ± 0.00767 (± 3.17%)	**761.7 ± 24.2 (± 3.18%)**	0.74	65.39	
		Full External Error ± 29.7		72%	15	
		Analytical Error ± 24.2		1.78	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**329.85 ± 26.56 (± 8.05%)**	0.24285 ± 0.00755 (± 3.11%)	**765.0 ± 23.8 (± 3.12%)**	0.76	65.39	
		Full External Error ± 29.4		71%	15	
		Analytical Error ± 23.8		1.78	2σ Confidence Limit	
				1.0000	Error Magnification	
				22%	Spreading Factor	



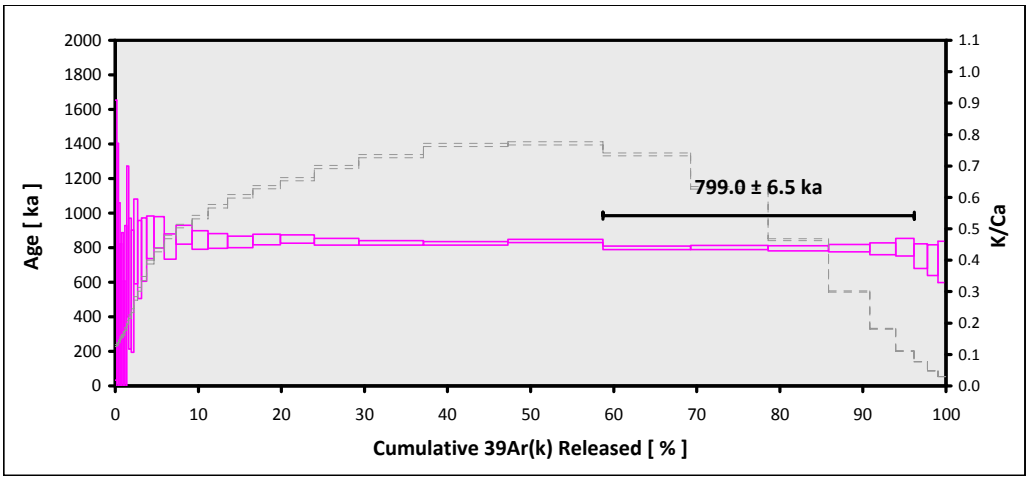


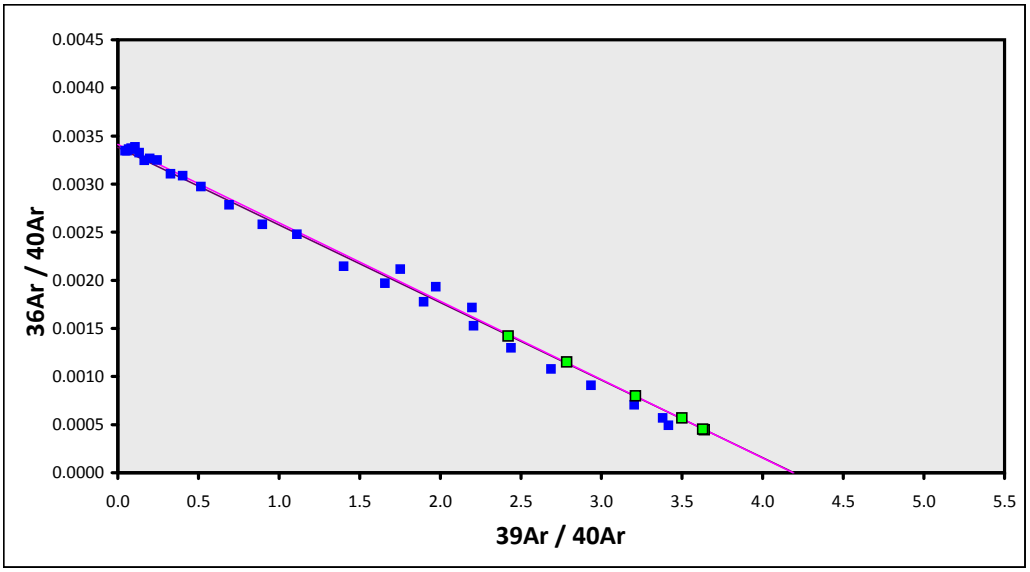
EXP#15D00964 > B1-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A16-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B1-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A16-14)**
Position = **X: 0 | Y: 0 | Z/H: 24.47 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.48022 ± 0.00967**
FCT-NM J-value = **0.00185342 ± 0.00000211**
Air Shot 40Ar/36Ar = **303.5930 ± 0.4979**
Air Shot MDF = **0.99332704 ± 0.00070222 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23844 ± 0.00186	**799.0 ± 6.5**	0.06	37.46	0.174 ± 0.110
Overestimated		± 0.78%	**± 0.81%**	100%	6	
			Full External Error ± 19.2	2.26	2σ Confidence Limit	
			Analytical Error ± 6.2	1.0000	Error Magnification	
Total Fusion Age		0.24178 ± 0.00200	**810.2 ± 6.9**		35	0.358 ± 0.001
		± 0.83%	**± 0.86%**			
			Full External Error ± 19.6			
			Analytical Error ± 6.7			
Normal Isochron	**292.98 ± 22.84**	0.23883 ± 0.00406	**800.3 ± 13.7**	0.06	37.46	
Overestimated	**± 7.80%**	± 1.70%	**± 1.71%**	99%	6	
			Full External Error ± 22.7	2.41	2σ Confidence Limit	
			Analytical Error ± 13.6	1.0000	Error Magnification	
Inverse Isochron	**293.09 ± 22.78**	0.23882 ± 0.00405	**800.2 ± 13.7**	0.06	37.46	
Overestimated	**± 7.77%**	± 1.69%	**± 1.71%**	99%	6	
			Full External Error ± 22.7	2.41	2σ Confidence Limit	
			Analytical Error ± 13.6	1.0000	Error Magnification	
				29%	Spreading Factor	



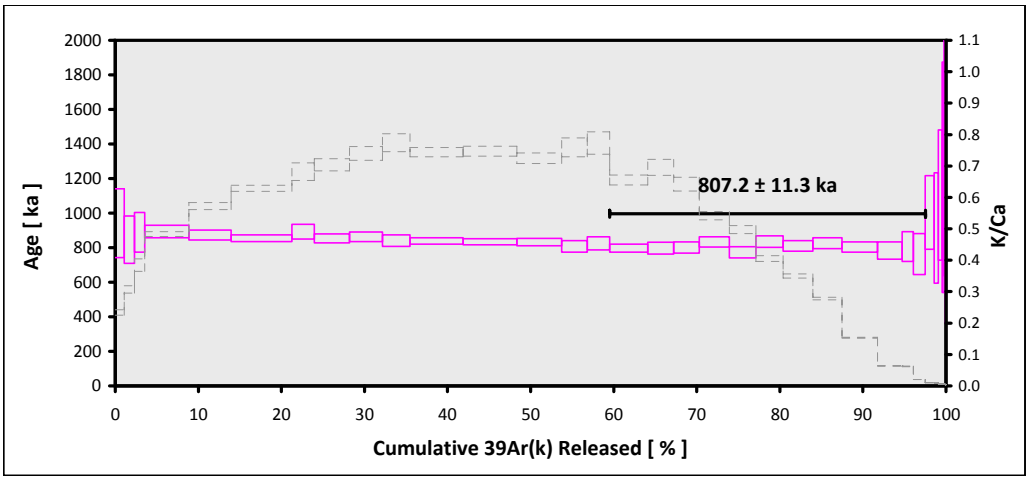


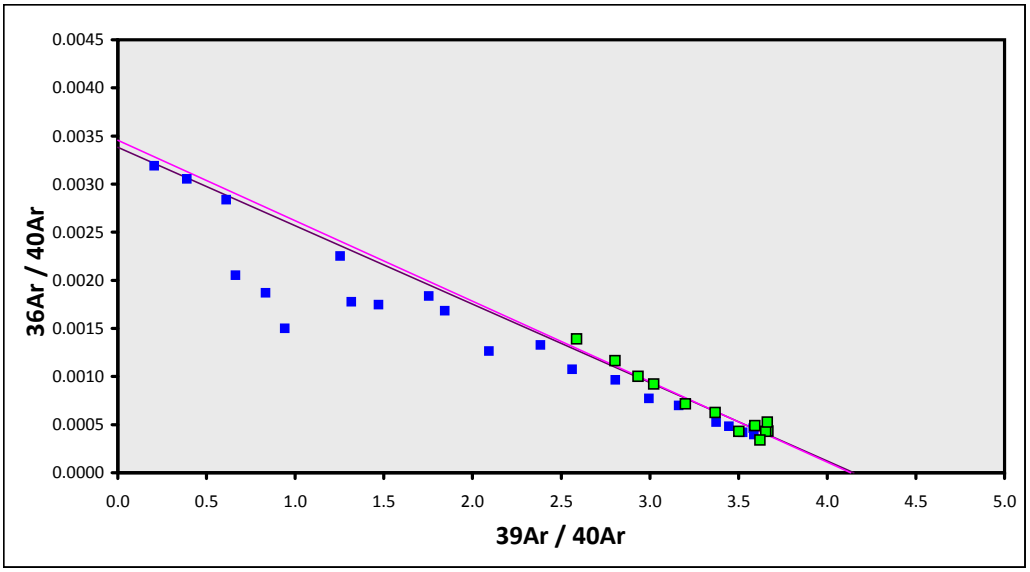
EXP#15D05865 > B1-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A16-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B1-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A16-14)**
Position = **X: 0 | Y: 0 | Z/H: 24.47 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.48022 ± 0.00967**
FCT-NM J-value = **0.00185342 ± 0.00000211**
Air Shot 40Ar/36Ar = **303.4820 ± 0.5402**
Air Shot MDF = **0.99341615 ± 0.00072244 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24091 ± 0.00334	**807.2 ± 11.3**	1.32	37.98	0.029 ± 0.017
		± 1.39%	**± 1.41%**	21%	12	
		Full External Error	± 21.5	1.85	2σ Confidence Limit	
		Analytical Error	± 11.2	1.1484	Error Magnification	
Total Fusion Age		0.25115 ± 0.00235	**841.6 ± 8.1**		34	0.154 ± 0.000
		± 0.93%	**± 0.96%**			
		Full External Error	± 20.6			
		Analytical Error	± 7.9			
Normal Isochron	**296.08 ± 37.32**	0.23919 ± 0.00762	**801.5 ± 25.6**	1.36	37.98	
No Convergence	**± 12.61%**	± 3.19%	**± 3.20%**	19%	12	
		Full External Error	± 31.4	1.89	2σ Confidence Limit	
		Analytical Error	± 25.5	1.1641	Error Magnification	
Inverse Isochron	**289.44 ± 37.94**	0.24206 ± 0.00746	**811.1 ± 25.1**	1.44	37.98	
	± 13.11%	± 3.08%	**± 3.09%**	16%	12	
		Full External Error	± 31.0	1.89	2σ Confidence Limit	
		Analytical Error	± 25.0	1.1987	Error Magnification	
				26%	Spreading Factor	



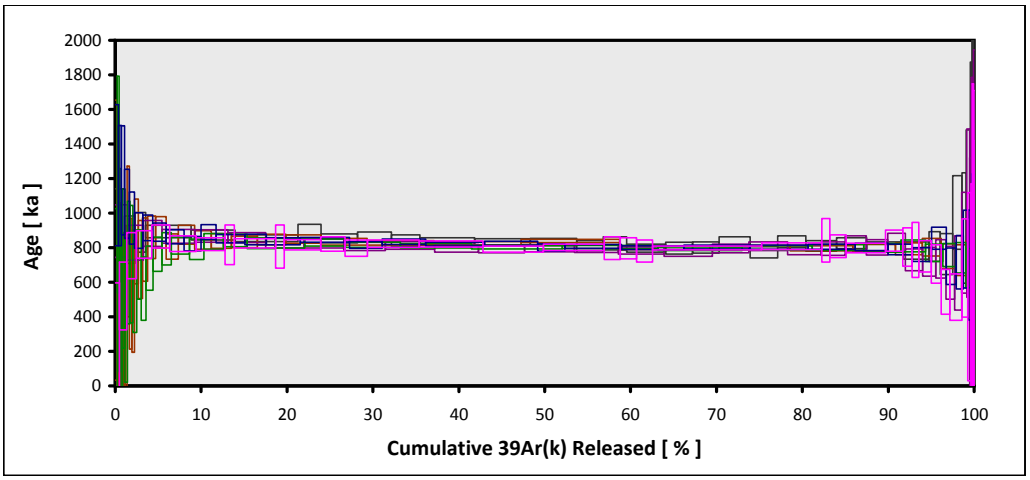


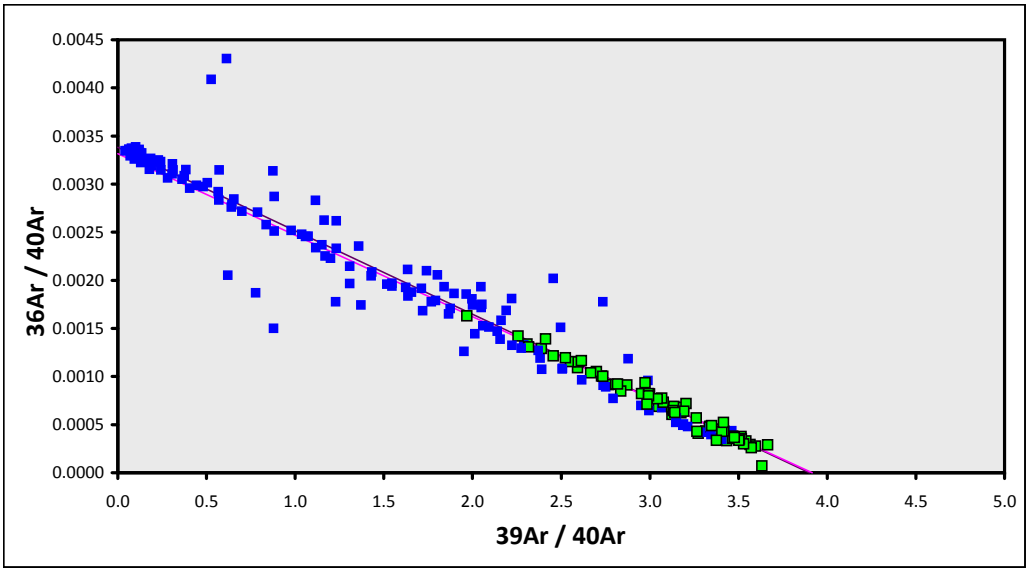
STACK > B1-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A29-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **B1-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A29-14)**
Position = **X: 0 | Y: 0 | Z/H: 51.26 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.08695 ± 0.00972**
FCT-NM J-value = **0.00172967 ± 0.00000185**
Air Shot 40Ar/36Ar = **303.2300 ± 0.4943**
Air Shot MDF = **0.99361871 ± 0.00070168 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25651 ± 0.00076 (± 0.30%)	**802.1 ± 2.9 (± 0.37%)**	1.07	56.10	0.072 ± 0.028
		Full External Error ± 18.3		33%	73	
		Analytical Error ± 2.4		1.33	2σ Confidence Limit	
				1.0327	Error Magnification	
Total Fusion Age		0.25895 ± 0.00093 (± 0.36%)	**809.8 ± 3.4 (± 0.42%)**		209	0.216 ± 0.000
		Full External Error ± 18.6				
		Analytical Error ± 2.9				
Normal Isochron	**288.95 ± 7.65 (± 2.65%)**	0.25806 ± 0.00168 (± 0.65%)	**807.0 ± 5.5 (± 0.69%)**	1.28	56.10	
No Convergence		Full External Error ± 19.0		6%	73	
		Analytical Error ± 5.3		1.34	2σ Confidence Limit	
				1.1308	Error Magnification	
Inverse Isochron	**301.53 ± 7.11 (± 2.36%)**	0.25541 ± 0.00158 (± 0.62%)	**798.7 ± 5.2 (± 0.65%)**	1.04	56.10	
		Full External Error ± 18.8		40%	73	
		Analytical Error ± 4.9		1.34	2σ Confidence Limit	
				1.0176	Error Magnification	
				43%	Spreading Factor	



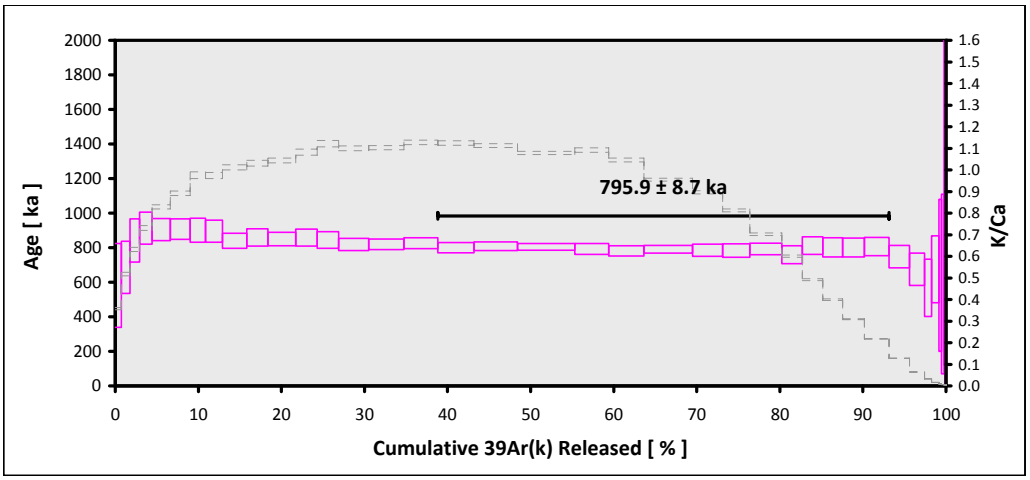


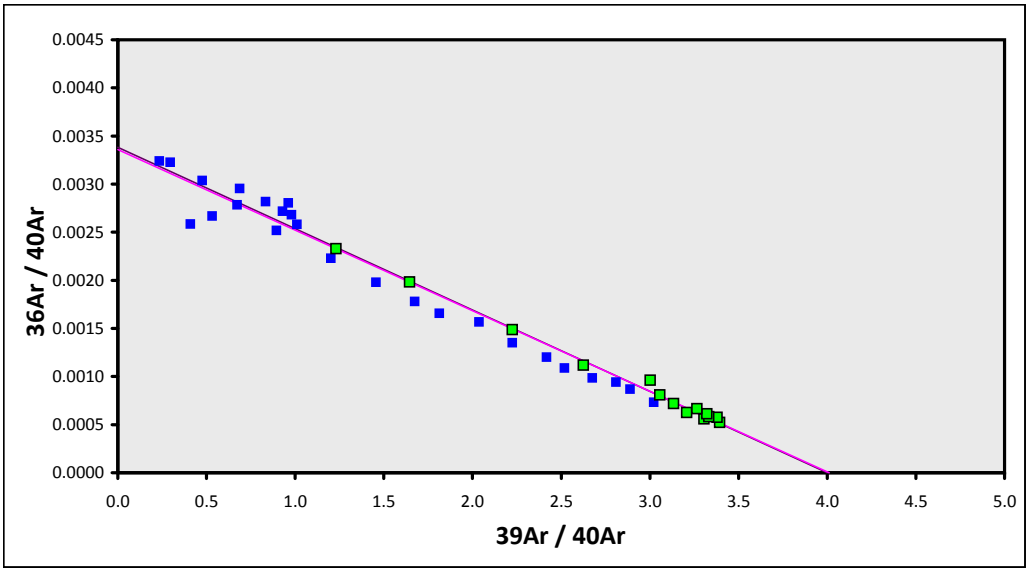
EXP#14D35723 > B2-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A26-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B2-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A26-14)**
Position = **X: 0 | Y: 0 | Z/H: 45.35 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.92430 ± 0.00973**
FCT-NM J-value = **0.00176119 ± 0.00000192**
Air Shot 40Ar/36Ar = **303.2530 ± 0.4913**
Air Shot MDF = **0.99360021 ± 0.00070025 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24997 ± 0.00267 (± 1.07%)	**795.9 ± 8.7 (± 1.09%)**	0.50	54.31	0.370 ± 0.133
		Full External Error ± 20.0		92%	14	
		Analytical Error ± 8.5		1.78	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25383 ± 0.00271 (± 1.07%)	**808.2 ± 8.8 (± 1.09%)**		39	0.256 ± 0.000
		Full External Error ± 20.3				
		Analytical Error ± 8.6				
Normal Isochron	**298.13 ± 8.46 (± 2.84%)**	0.24878 ± 0.00360 (± 1.45%)	**792.1 ± 11.6 (± 1.46%)**	0.55	54.31	
		Full External Error ± 21.3		89%	14	
		Analytical Error ± 11.4		1.82	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**297.79 ± 8.45 (± 2.84%)**	0.24935 ± 0.00357 (± 1.43%)	**794.0 ± 11.5 (± 1.45%)**	0.52	54.31	
		Full External Error ± 21.3		91%	14	
		Analytical Error ± 11.4		1.82	2σ Confidence Limit	
				1.0000	Error Magnification	
				54%	Spreading Factor	



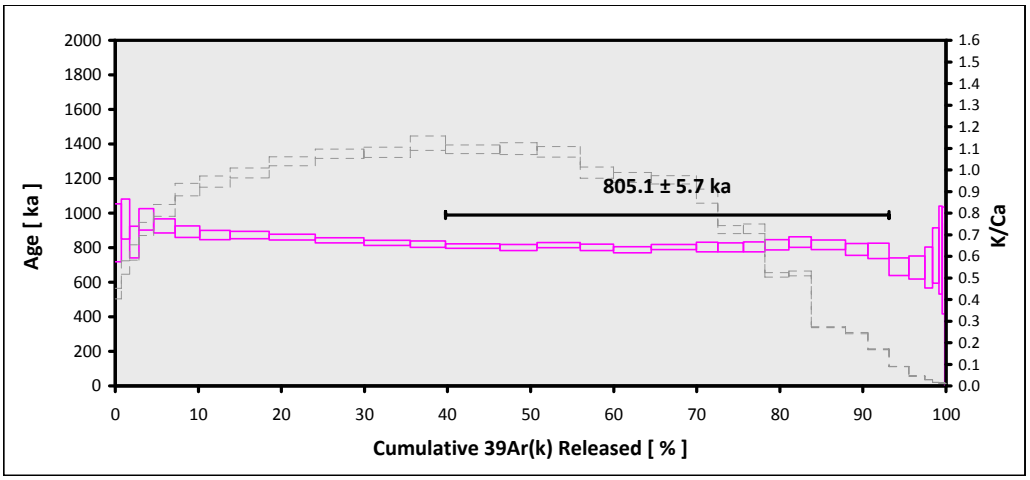


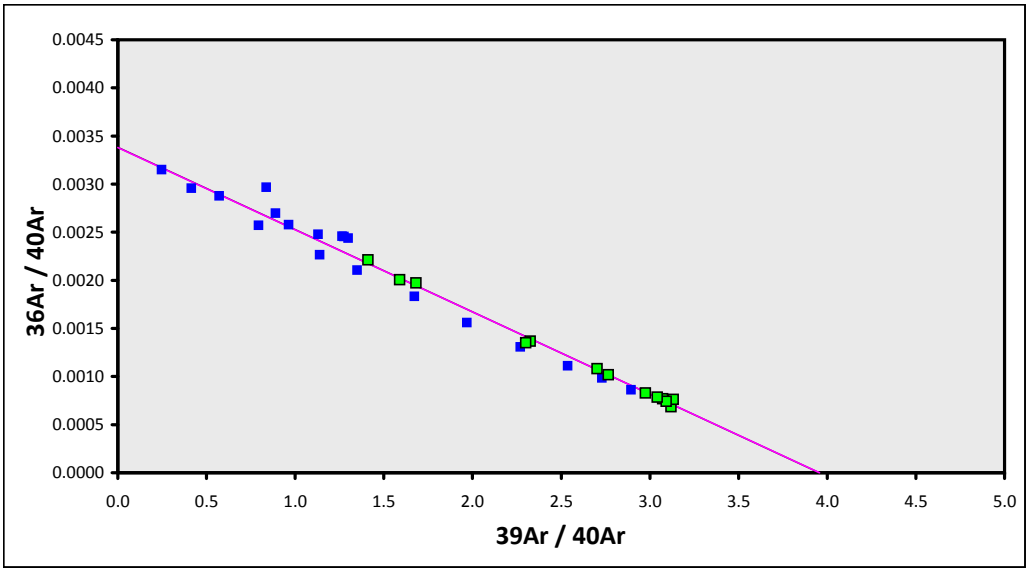
EXP#15D06055 > B2-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A26-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B2-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A26-14)**
Position = **X: 0 | Y: 0 | Z/H: 45.35 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.92430 ± 0.00973**
FCT-NM J-value = **0.00176119 ± 0.00000192**
Air Shot 40Ar/36Ar = **303.4750 ± 0.5311**
Air Shot MDF = **0.99342177 ± 0.00071809 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.25287 ± 0.00171 (± 0.68%)	**805.1 ± 5.7 (± 0.71%)**	0.98	53.40	0.241 ± 0.080
		Full External Error ± 19.1		47%	14	
		Analytical Error ± 5.4		1.78	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25797 ± 0.00174 (± 0.68%)	**821.4 ± 5.8 (± 0.71%)**		33	0.287 ± 0.001
		Full External Error ± 19.4				
		Analytical Error ± 5.5				
Normal Isochron	**296.07 ± 6.12 (± 2.07%)**	0.25239 ± 0.00285 (± 1.13%)	**803.6 ± 9.2 (± 1.15%)**	1.07	53.40	
		Full External Error ± 20.4		38%	14	
		Analytical Error ± 9.1		1.82	2σ Confidence Limit	
				1.0364	Error Magnification	
Inverse Isochron	**296.01 ± 6.09 (± 2.06%)**	0.25268 ± 0.00283 (± 1.12%)	**804.6 ± 9.2 (± 1.14%)**	1.06	53.40	
		Full External Error ± 20.3		39%	14	
		Analytical Error ± 9.0		1.82	2σ Confidence Limit	
				1.0278	Error Magnification	
				44%	Spreading Factor	



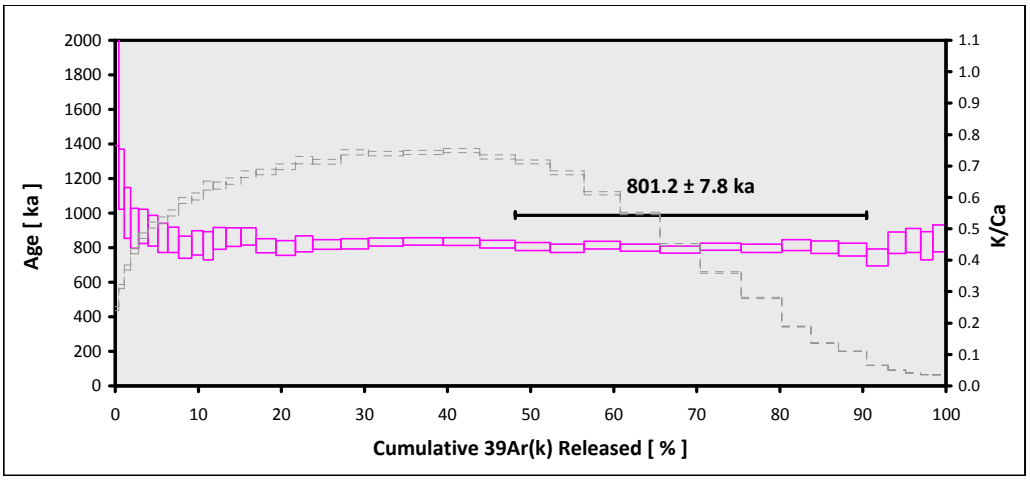


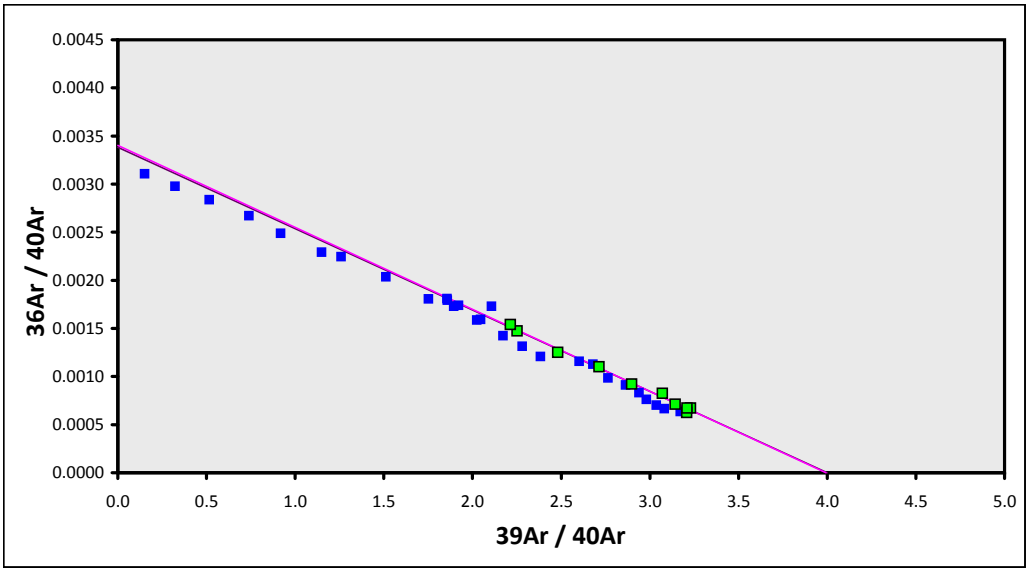
EXP#15D00709 > B2-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A25-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B2-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A25-14)**
Position = **X: 0 | Y: 0 | Z/H: 43.01 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.86441 ± 0.00966**
FCT-NM J-value = **0.00177309 ± 0.00000193**
Air Shot 40Ar/36Ar = **303.5230 ± 0.4856**
Air Shot MDF = **0.99338323 ± 0.00069689 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24993 ± 0.00237 (± 0.95%)	**801.2 ± 7.8 (± 0.97%)**	0.52	42.29	0.170 ± 0.072
		Full External Error ± 19.7		86%	10	
		Analytical Error ± 7.6		1.94	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25756 ± 0.00206 (± 0.80%)	**825.6 ± 6.8 (± 0.83%)**		38	0.233 ± 0.000
		Full External Error ± 19.9				
		Analytical Error ± 6.6				
Normal Isochron	**294.12 ± 16.82 (± 5.72%)**	0.25019 ± 0.00575 (± 2.30%)	**802.0 ± 18.5 (± 2.31%)**	0.58	42.29	
		Full External Error ± 25.9		80%	10	
		Analytical Error ± 18.4		2.00	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**293.91 ± 16.79 (± 5.71%)**	0.25044 ± 0.00571 (± 2.28%)	**802.8 ± 18.4 (± 2.29%)**	0.59	42.29	
		Full External Error ± 25.8		79%	10	
		Analytical Error ± 18.3		2.00	2σ Confidence Limit	
				1.0000	Error Magnification	
				25%	Spreading Factor	



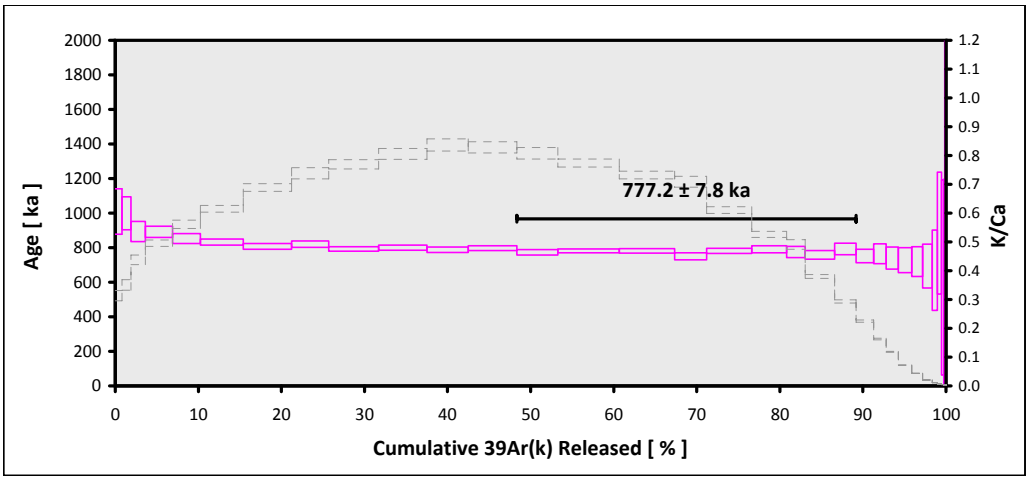


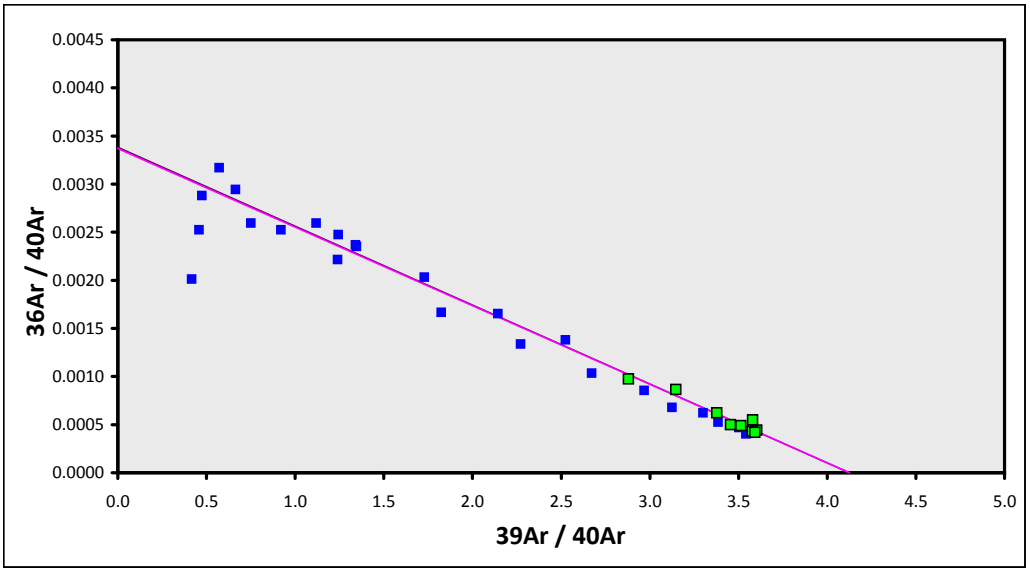
EXP#15D06101 > B2-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A25-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B2-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A25-14)**
Position = **X: 0 | Y: 0 | Z/H: 43.01 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.86441 ± 0.00966**
FCT-NM J-value = **0.00177309 ± 0.00000193**
Air Shot 40Ar/36Ar = **303.4710 ± 0.5311**
Air Shot MDF = **0.99342499 ± 0.00071810 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24246 ± 0.00238	**777.2 ± 7.8**	1.71	40.81	0.455 ± 0.121
		± 0.98%	**± 1.01%**	9%	9	
		Full External Error ± 19.2		2.00	2σ Confidence Limit	
		Analytical Error ± 7.6		1.3095	Error Magnification	
Total Fusion Age		0.24871 ± 0.00182	**797.3 ± 6.1**		33	0.183 ± 0.000
		± 0.73%	**± 0.76%**			
		Full External Error ± 19.0				
		Analytical Error ± 5.8				
Normal Isochron	**295.28 ± 56.40**	0.24172 ± 0.00871	**774.9 ± 28.0**	2.32	40.81	
No Convergence	**± 19.10%**	± 3.60%	**± 3.61%**	2%	9	
		Full External Error ± 33.0		2.07	2σ Confidence Limit	
		Analytical Error ± 27.9		1.5245	Error Magnification	
Inverse Isochron	**296.84 ± 52.89**	0.24228 ± 0.00781	**776.6 ± 25.1**	1.95	40.81	
	± 17.82%	± 3.23%	**± 3.23%**	6%	9	
		Full External Error ± 30.6		2.07	2σ Confidence Limit	
		Analytical Error ± 25.0		1.3973	Error Magnification	
				18%	Spreading Factor	



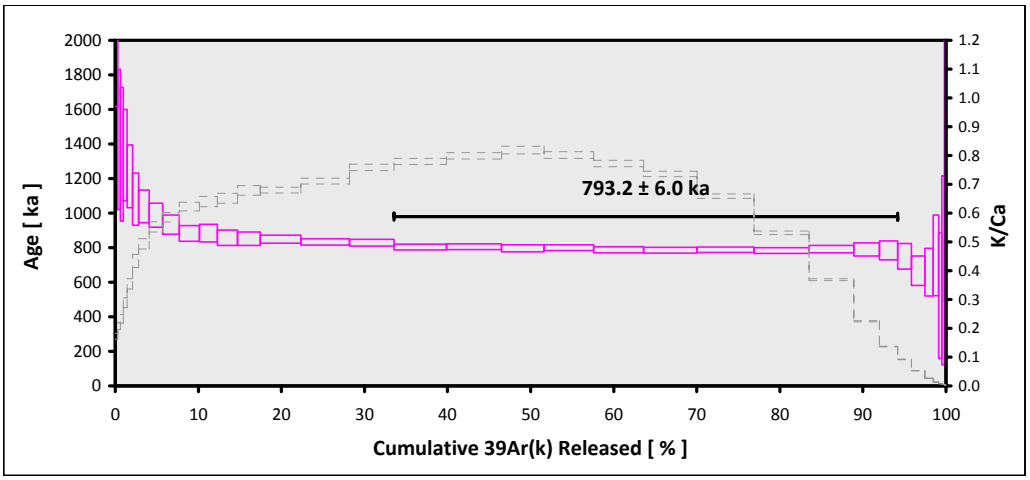


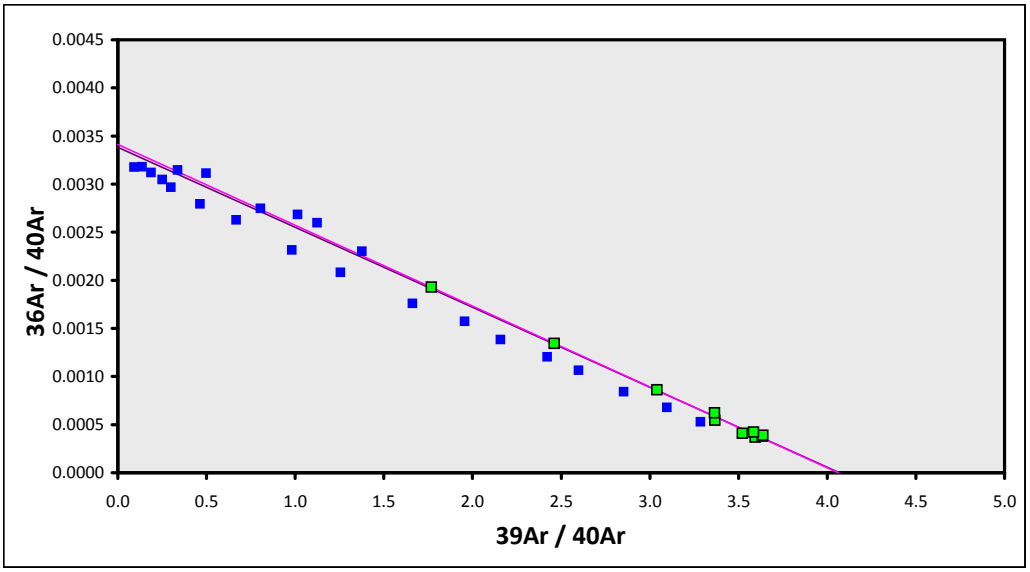
EXP#15D05339 > B2-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A24-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B2-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A24-14)**
Position = **X: 0 | Y: 0 | Z/H: 40.58 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.80492 ± 0.00969**
FCT-NM J-value = **0.00178507 ± 0.00000196**
Air Shot 40Ar/36Ar = **303.4350 ± 0.5492**
Air Shot MDF = **0.99345391 ± 0.00072697 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24578 ± 0.00177 (± 0.72%)	**793.2 ± 6.0 (± 0.75%)**	0.82	60.65	0.233 ± 0.109
		Full External Error ± 18.9		61%	11	
		Analytical Error ± 5.7		1.89	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.25622 ± 0.00221 (± 0.86%)	**826.9 ± 7.3 (± 0.89%)**		34	0.213 ± 0.001
		Full External Error ± 20.1				
		Analytical Error ± 7.1				
Normal Isochron	**293.32 ± 13.99 (± 4.77%)**	0.24580 ± 0.00283 (± 1.15%)	**793.2 ± 9.3 (± 1.17%)**	0.86	60.65	
		Full External Error ± 20.2		56%	11	
		Analytical Error ± 9.1		1.94	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**293.05 ± 14.01 (± 4.78%)**	0.24618 ± 0.00282 (± 1.14%)	**794.5 ± 9.3 (± 1.16%)**	0.90	60.65	
		Full External Error ± 20.2		53%	11	
		Analytical Error ± 9.1		1.94	2σ Confidence Limit	
				1.0000	Error Magnification	
				46%	Spreading Factor	



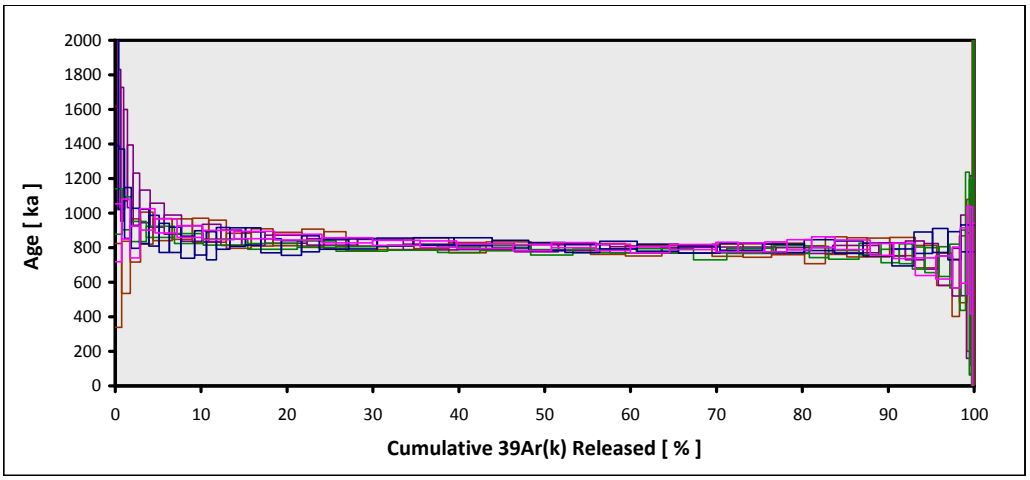


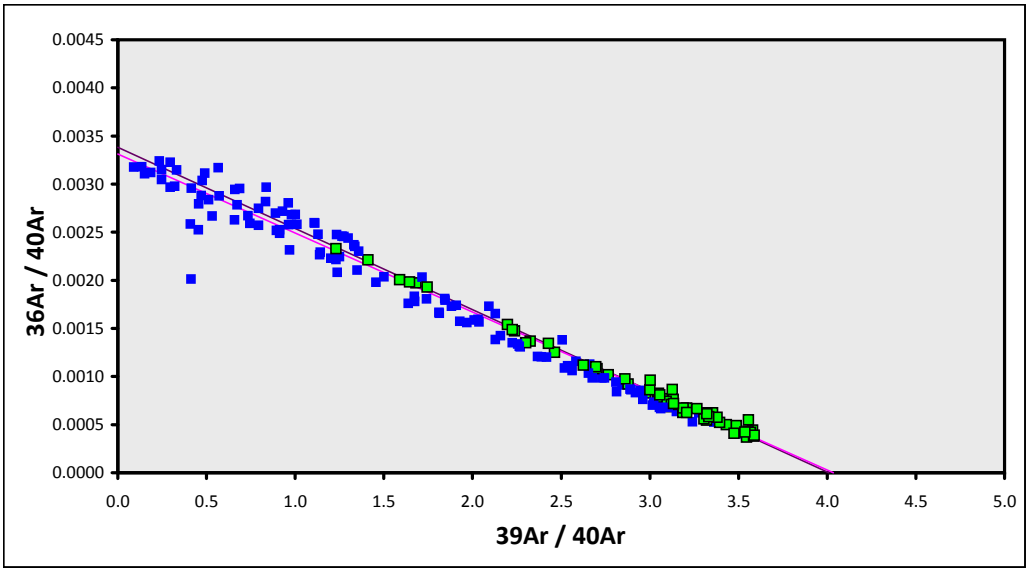
STACK > B2-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A26-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **B2-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A26-14)**
Position = **X: 0 | Y: 0 | Z/H: 45.35 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.92430 ± 0.00973**
FCT-NM J-value = **0.00176119 ± 0.00000192**
Air Shot 40Ar/36Ar = **303.4750 ± 0.5311**
Air Shot MDF = **0.99342177 ± 0.00071809 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24939 ± 0.00117	**794.1 ± 4.1**	1.75	50.86	0.218 ± 0.044
Error Mean		± 0.47%	**± 0.52%**	0%	58	
			Full External Error ± 18.4	1.37	2σ Confidence Limit	
			Analytical Error ± 3.7	1.3216	Error Magnification	
Total Fusion Age		0.25663 ± 0.00098	**817.1 ± 3.6**		177	0.233 ± 0.000
		± 0.38%	**± 0.44%**			
			Full External Error ± 18.8			
			Analytical Error ± 3.1			
Normal Isochron	**302.66 ± 5.41**	0.24677 ± 0.00179	**785.7 ± 6.0**	1.80	50.86	
Error Chron	**± 1.79%**	± 0.73%	**± 0.76%**	0%	58	
			Full External Error ± 18.7	1.38	2σ Confidence Limit	
			Analytical Error ± 5.7	1.3423	Error Magnification	
Inverse Isochron	**301.79 ± 5.13**	0.24788 ± 0.00170	**789.3 ± 5.7**	1.59	50.86	
Error Chron	**± 1.70%**	± 0.68%	**± 0.72%**	0%	58	
			Full External Error ± 18.7	1.38	2σ Confidence Limit	
			Analytical Error ± 5.4	1.2614	Error Magnification	
				58%	Spreading Factor	



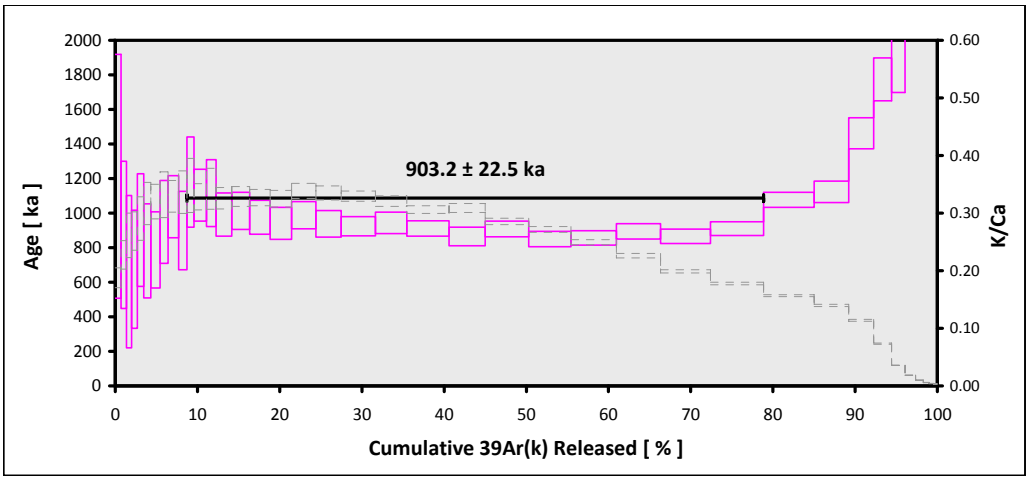


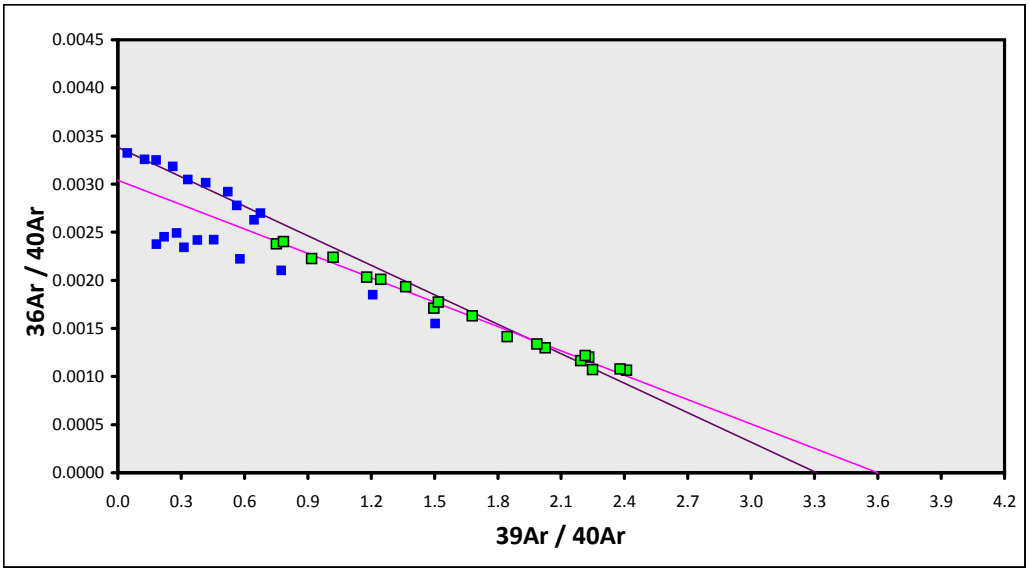
EXP#14D35514 > B3-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B3-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 34.83 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.50320 ± 0.00950**
FCT-NM J-value = **0.00165391 ± 0.00000165**
Air Shot 40Ar/36Ar = **303.2580 ± 0.4973**
Air Shot MDF = **0.99359619 ± 0.00070300 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.30206 ± 0.00750	**903.2 ± 22.5**	2.76	70.15	0.227 ± 0.024
Error Mean		± 2.48%	**± 2.49%**	0%	19	
			Full External Error ± 30.3	1.67	2σ Confidence Limit	
			Analytical Error ± 22.4	1.6617	Error Magnification	
Total Fusion Age		0.35774 ± 0.00555	**1069.6 ± 16.7**		39	0.099 ± 0.000
		± 1.55%	**± 1.56%**			
			Full External Error ± 29.4			
			Analytical Error ± 16.6			
Normal Isochron	**329.16 ± 11.39**	0.27698 ± 0.00961	**828.2 ± 28.8**	0.54	70.15	
	± 3.46%	± 3.47%	**± 3.48%**	93%	19	
			Full External Error ± 34.3	1.69	2σ Confidence Limit	
			Analytical Error ± 28.7	1.0000	Error Magnification	
Inverse Isochron	**328.95 ± 11.47**	0.27783 ± 0.00964	**830.7 ± 28.9**	0.55	70.15	
	± 3.49%	± 3.47%	**± 3.48%**	93%	19	
			Full External Error ± 34.4	1.69	2σ Confidence Limit	
			Analytical Error ± 28.8	1.0000	Error Magnification	
				46%	Spreading Factor	



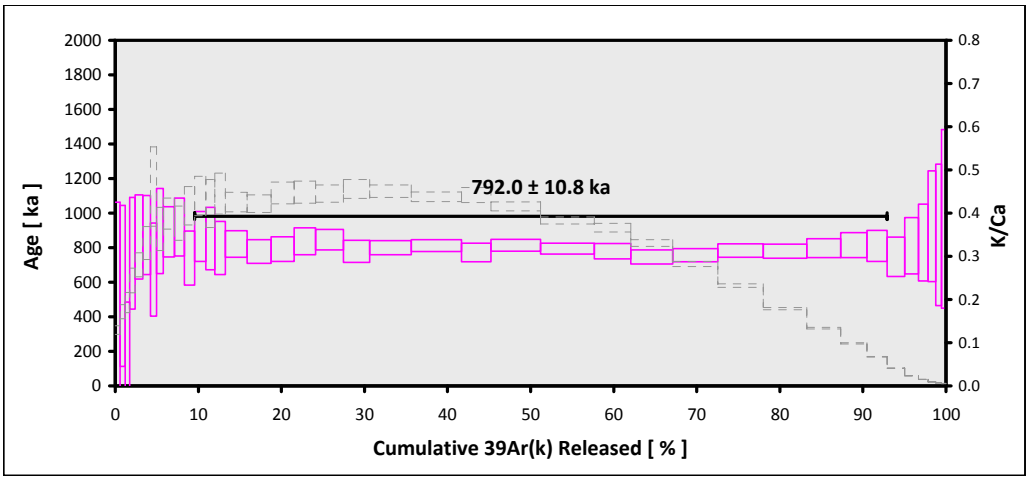


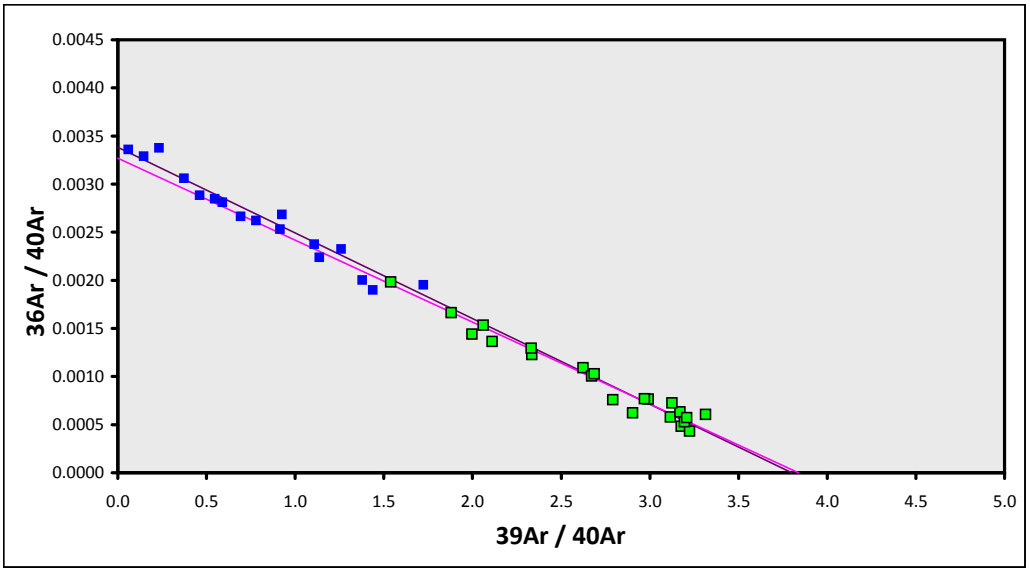
EXP#14D35567 > B3-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B3-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 32.12 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.44135 ± 0.00944**
FCT-NM J-value = **0.00166474 ± 0.00000166**
Air Shot 40Ar/36Ar = **303.2540 ± 0.4973**
Air Shot MDF = **0.99359941 ± 0.00070301 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = Undefined
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26314 ± 0.00354	**792.0 ± 10.8**	1.00	83.37	0.108 ± 0.031
		± 1.35%	**± 1.36%**	46%	22	
		Full External Error	± 20.9	1.62	2σ Confidence Limit	
		Analytical Error	± 10.7	1.0013	Error Magnification	
Total Fusion Age		0.26340 ± 0.00470	**792.8 ± 14.2**		39	0.120 ± 0.000
		± 1.78%	**± 1.79%**			
		Full External Error	± 22.9			
		Analytical Error	± 14.1			
Normal Isochron	**310.34 ± 19.14**	0.25679 ± 0.00650	**772.9 ± 19.6**	0.93	83.37	
	± 6.17%	± 2.53%	**± 2.54%**	54%	22	
		Full External Error	± 26.3	1.63	2σ Confidence Limit	
		Analytical Error	± 19.6	1.0000	Error Magnification	
Inverse Isochron	**305.74 ± 18.77**	0.26054 ± 0.00618	**784.1 ± 18.6**	0.99	83.37	
	± 6.14%	± 2.37%	**± 2.38%**	47%	22	
		Full External Error	± 25.7	1.63	2σ Confidence Limit	
		Analytical Error	± 18.6	1.0000	Error Magnification	
				46%	Spreading Factor	



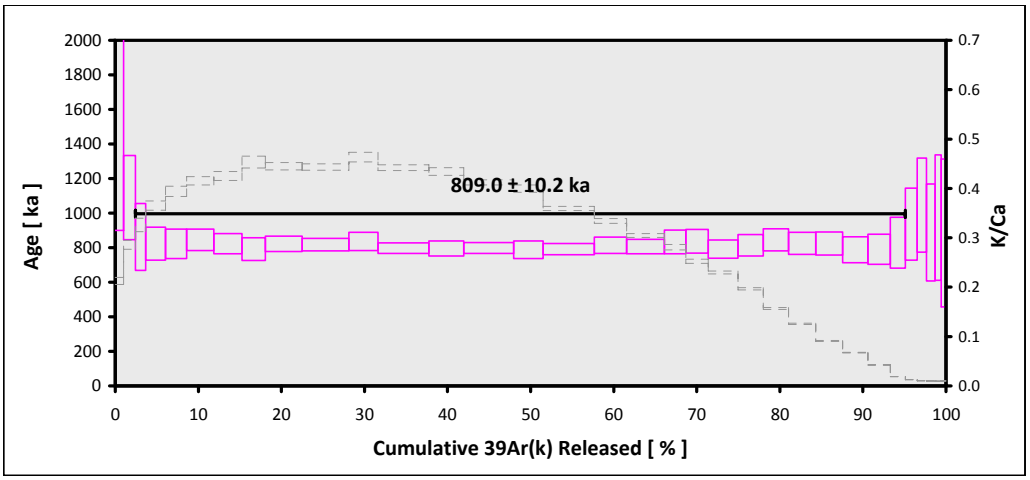


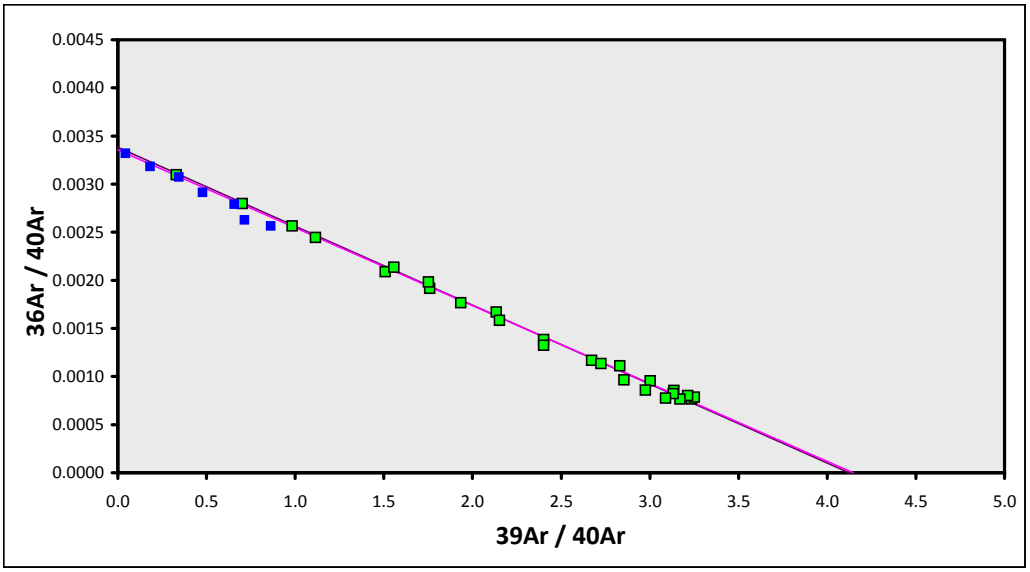
EXP#15D20108 > B3-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C4-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B3-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C4-15)**
Position = **X: 0 | Y: 0 | Z/H: 7.19 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.51881 ± 0.00929**
FCT-NM J-value = **0.00184502 ± 0.00000201**
Air Shot 40Ar/36Ar = **302.6860 ± 0.5933**
Air Shot MDF = **0.99405714 ± 0.00075158 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24252 ± 0.00302	**809.0 ± 10.2**	0.45	92.69	0.034 ± 0.016
		± 1.25%	**± 1.27%**	99%	26	
		Full External Error	± 20.9	1.57	2σ Confidence Limit	
		Analytical Error	± 10.1	1.0000	Error Magnification	
Total Fusion Age		0.24889 ± 0.00422	**830.2 ± 14.2**		33	0.104 ± 0.000
		± 1.70%	**± 1.71%**			
		Full External Error	± 23.5			
		Analytical Error	± 14.1			
Normal Isochron	**298.19 ± 4.25**	0.24059 ± 0.00381	**802.5 ± 12.8**	0.39	92.69	
	± 1.42%	± 1.58%	**± 1.60%**	100%	26	
		Full External Error	± 22.2	1.58	2σ Confidence Limit	
		Analytical Error	± 12.7	1.0000	Error Magnification	
Inverse Isochron	**298.08 ± 4.26**	0.24113 ± 0.00383	**804.3 ± 12.9**	0.40	92.69	
	± 1.43%	± 1.59%	**± 1.60%**	100%	26	
		Full External Error	± 22.3	1.58	2σ Confidence Limit	
		Analytical Error	± 12.8	1.0000	Error Magnification	
				70%	Spreading Factor	



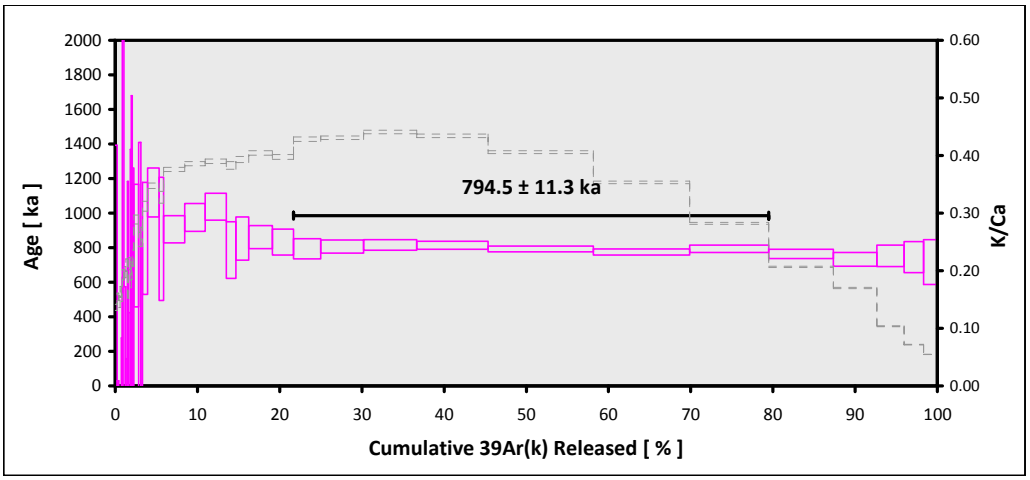


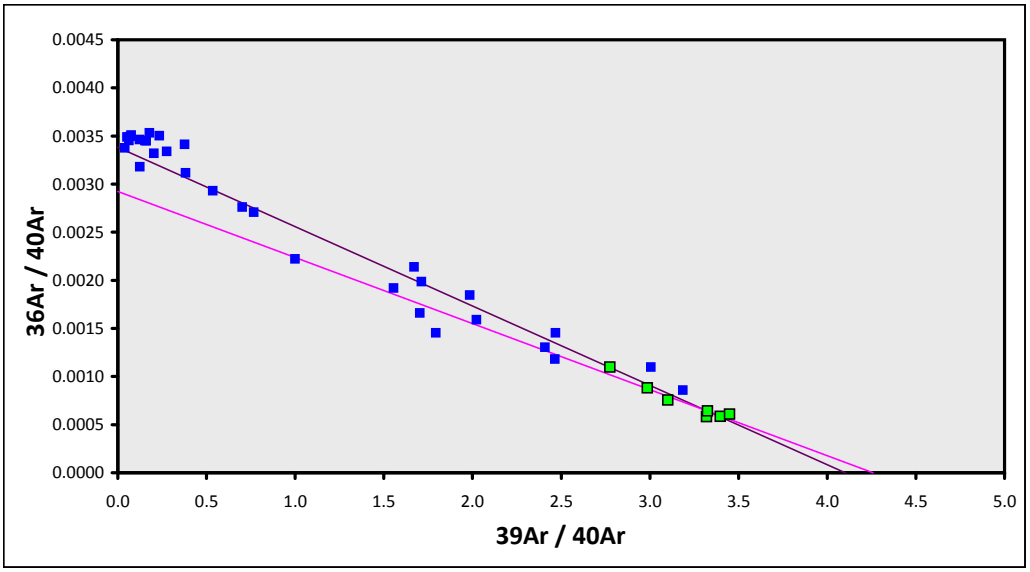
EXP#15D00657 > B3-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A22-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B3-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A22-14)**
Position = **X: 0 | Y: 0 | Z/H: 36.94 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.72096 ± 0.00968**
FCT-NM J-value = **0.00180225 ± 0.00000200**
Air Shot 40Ar/36Ar = **303.5140 ± 0.4856**
Air Shot MDF = **0.99339046 ± 0.00069691 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24384 ± 0.00344	**794.5 ± 11.3**	1.62	57.79	0.369 ± 0.052
		± 1.41%	**± 1.43%**	14%	7	
		Full External Error ± 21.2		2.15	2σ Confidence Limit	
		Analytical Error ± 11.2		1.2735	Error Magnification	
Total Fusion Age		0.23923 ± 0.00390	**779.5 ± 12.8**		38	0.261 ± 0.000
		± 1.63%	**± 1.65%**			
		Full External Error ± 21.8				
		Analytical Error ± 12.7				
Normal Isochron	**341.46 ± 80.07**	0.23443 ± 0.01603	**763.9 ± 52.3**	1.49	57.79	
	± 23.45%	± 6.84%	**± 6.84%**	19%	7	
		Full External Error ± 55.0		2.26	2σ Confidence Limit	
		Analytical Error ± 52.2		1.2200	Error Magnification	
Inverse Isochron	**341.91 ± 83.29**	0.23487 ± 0.01620	**765.3 ± 52.8**	1.51	57.79	
	± 24.36%	± 6.90%	**± 6.90%**	18%	7	
		Full External Error ± 55.6		2.26	2σ Confidence Limit	
		Analytical Error ± 52.8		1.2287	Error Magnification	
				16%	Spreading Factor	



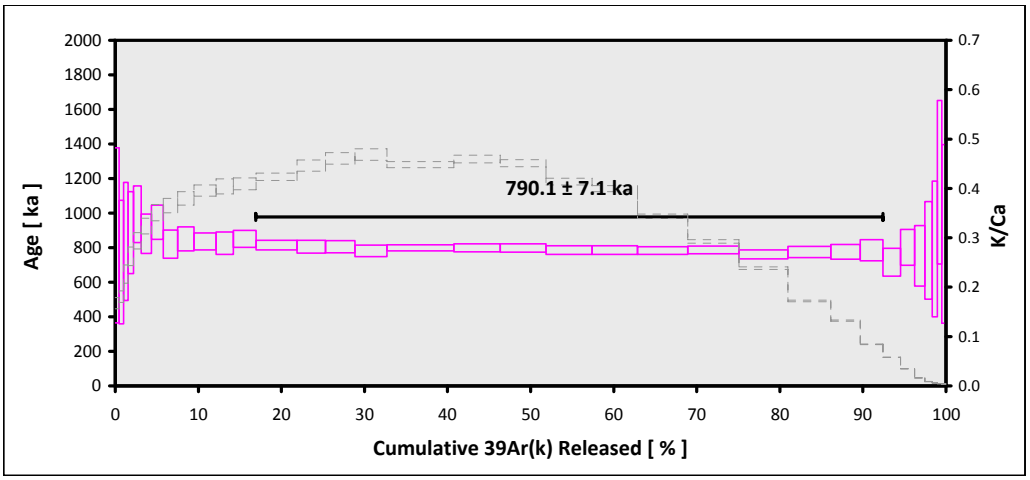


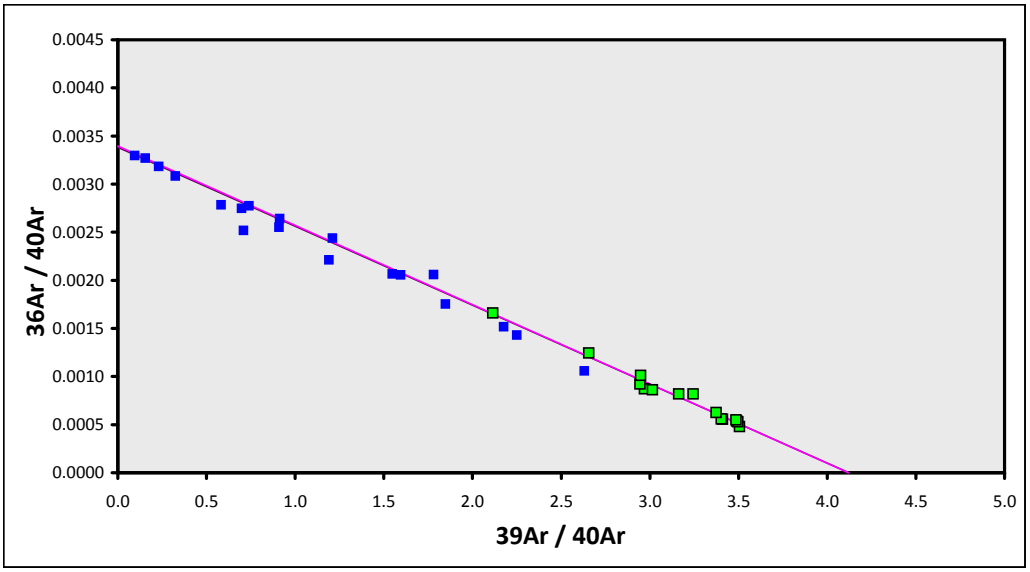
EXP#15D05530 > B3-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A22-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B3-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A22-14)**
Position = **X: 0 | Y: 0 | Z/H: 36.94 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.72096 ± 0.00968**
FCT-NM J-value = **0.00180225 ± 0.00000200**
Air Shot 40Ar/36Ar = **303.4730 ± 0.5432**
Air Shot MDF = **0.99342338 ± 0.00072393 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.24250 ± 0.00212 ± 0.87%	**790.1 ± 7.1** **± 0.90%**	0.97 48%	75.49 15	0.144 ± 0.050
		Full External Error ± 19.2		1.76	2σ Confidence Limit	
		Analytical Error ± 6.9		1.0000	Error Magnification	
Total Fusion Age		0.24598 ± 0.00301 ± 1.22%	**801.5 ± 10.0** **± 1.24%**		34	0.109 ± 0.000
		Full External Error ± 20.7				
		Analytical Error ± 9.8				
Normal Isochron	**292.76 ± 21.99** **± 7.51%**	0.24257 ± 0.00520 ± 2.14%	**790.4 ± 17.0** **± 2.16%**	1.07 38%	75.49 15	
		Full External Error ± 24.7		1.78	2σ Confidence Limit	
		Analytical Error ± 16.9		1.0355	Error Magnification	
Inverse Isochron	**294.37 ± 21.90** **± 7.44%**	0.24277 ± 0.00511 ± 2.10%	**791.0 ± 16.7** **± 2.11%**	1.05 40%	75.49 15	
		Full External Error ± 24.5		1.78	2σ Confidence Limit	
		Analytical Error ± 16.6		1.0227	Error Magnification	
				34%	Spreading Factor	



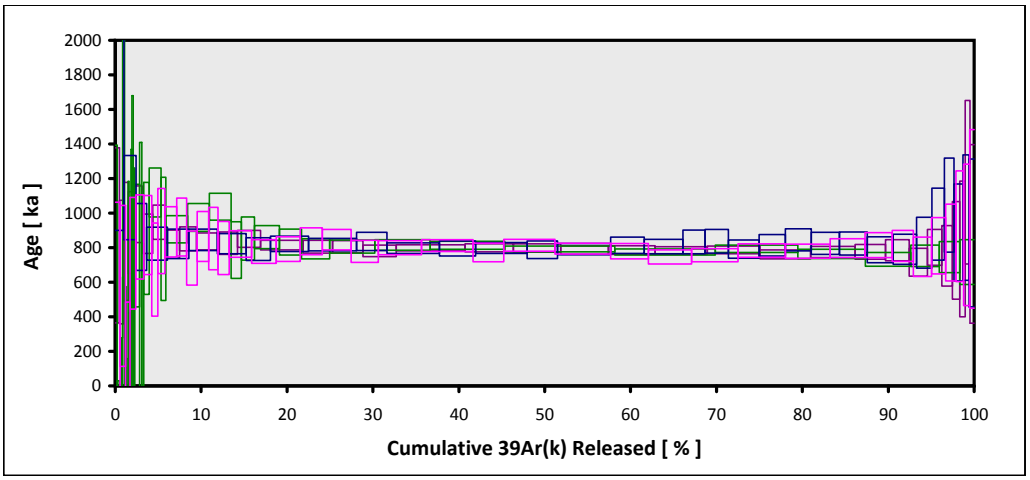


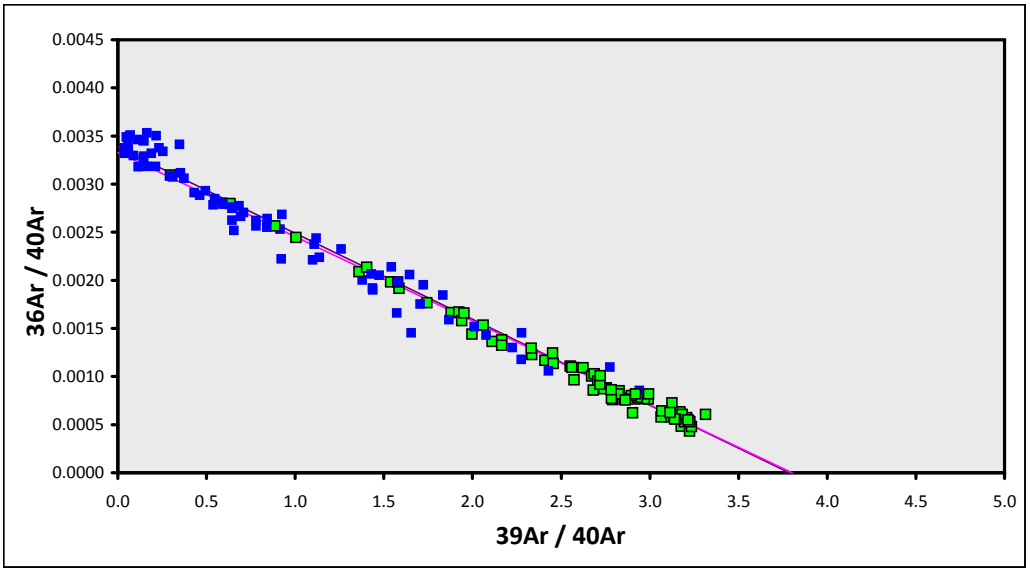
STACK > B3-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-04 (R98) > Incremental Heating > Dan Miggins

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **B3-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Dan Miggins**
Irradiation = **14-OSU-04 (R98)**
Position = **X: 0 | Y: 0 | Z/H: 32.12 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **9.44135 ± 0.00944**
FCT-NM J-value = **0.00166474 ± 0.00000166**
Air Shot 40Ar/36Ar = **303.2540 ± 0.4973**
Air Shot MDF = **0.99359941 ± 0.00070301 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = Undefined
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.26416 ± 0.00145	**795.0 ± 4.6**	0.95	74.43	0.048 ± 0.017
		± 0.55%	**± 0.58%**	59%	70	
		Full External Error	± 18.5	1.34	2σ Confidence Limit	
		Analytical Error	± 4.4	1.0000	Error Magnification	
Total Fusion Age		0.26508 ± 0.00216	**797.8 ± 6.7**		144	0.138 ± 0.000
		± 0.81%	**± 0.84%**			
		Full External Error	± 19.2			
		Analytical Error	± 6.5			
Normal Isochron	**300.51 ± 3.78**	0.26201 ± 0.00186	**788.6 ± 5.8**	0.90	74.43	
	± 1.26%	± 0.71%	**± 0.74%**	71%	70	
		Full External Error	± 18.7	1.34	2σ Confidence Limit	
		Analytical Error	± 5.6	1.0000	Error Magnification	
Inverse Isochron	**300.32 ± 3.79**	0.26305 ± 0.00186	**791.7 ± 5.8**	0.87	74.43	
	± 1.26%	± 0.71%	**± 0.73%**	76%	70	
		Full External Error	± 18.8	1.34	2σ Confidence Limit	
		Analytical Error	± 5.6	1.0000	Error Magnification	
				79%	Spreading Factor	



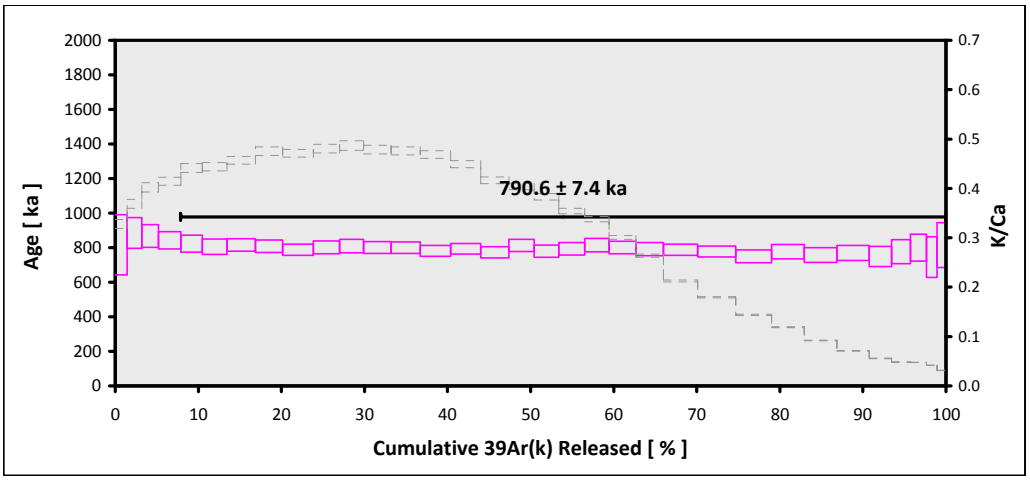


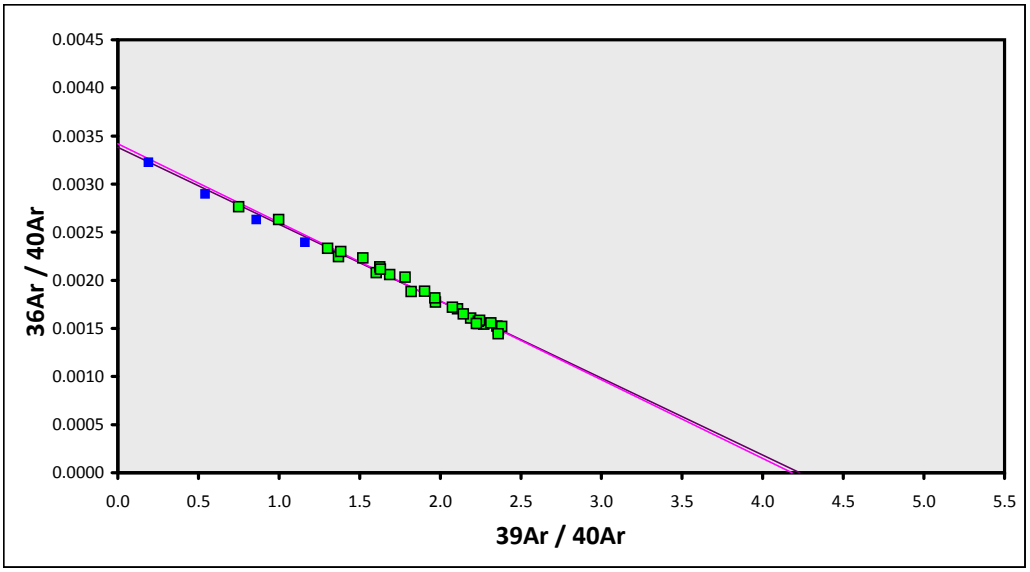
EXP#15D20281 > B4-AR-2 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C3-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B4-AR-2**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C3-15)**
Position = **X: 0 | Y: 0 | Z/H: 5.01 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.49722 ± 0.00926**
FCT-NM J-value = **0.00184971 ± 0.00000202**
Air Shot 40Ar/36Ar = **302.6910 ± 0.5933**
Air Shot MDF = **0.99405310 ± 0.00075157 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23643 ± 0.00215	**790.6 ± 7.4**	0.89	92.12	0.056 ± 0.016
		± 0.91%	**± 0.94%**	64%	29	
		Full External Error	± 19.3	1.53	2σ Confidence Limit	
		Analytical Error	± 7.2	1.0000	Error Magnification	
Total Fusion Age		0.23737 ± 0.00237	**793.8 ± 8.1**		33	0.176 ± 0.000
		± 1.00%	**± 1.02%**			
		Full External Error	± 19.7			
		Analytical Error	± 7.9			
Normal Isochron	**292.25 ± 6.39**	0.23909 ± 0.00612	**799.5 ± 20.5**	0.89	92.12	
	± 2.19%	± 2.56%	**± 2.57%**	63%	29	
		Full External Error	± 27.3	1.54	2σ Confidence Limit	
		Analytical Error	± 20.5	1.0000	Error Magnification	
Inverse Isochron	**292.52 ± 6.38**	0.23911 ± 0.00608	**799.6 ± 20.4**	0.89	92.12	
	± 2.18%	± 2.54%	**± 2.55%**	63%	29	
		Full External Error	± 27.2	1.54	2σ Confidence Limit	
		Analytical Error	± 20.3	1.0000	Error Magnification	
				39%	Spreading Factor	



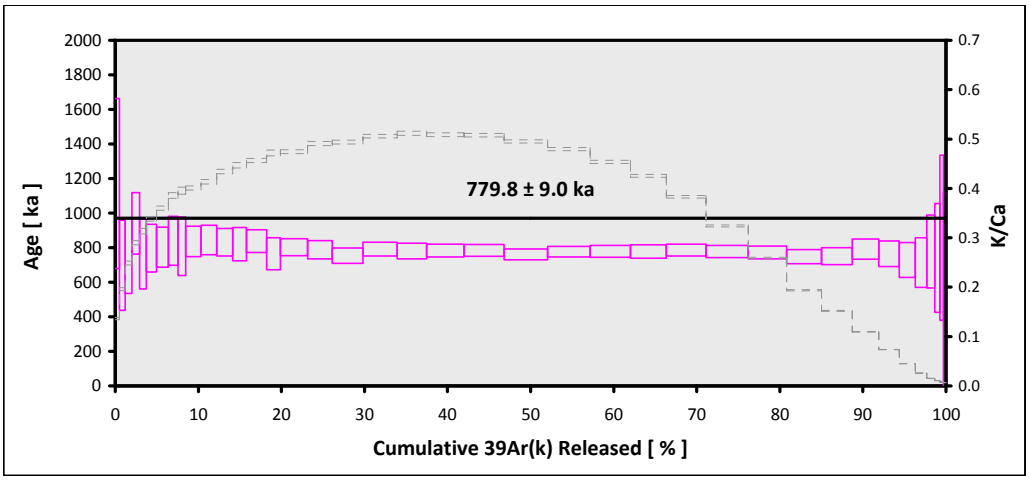


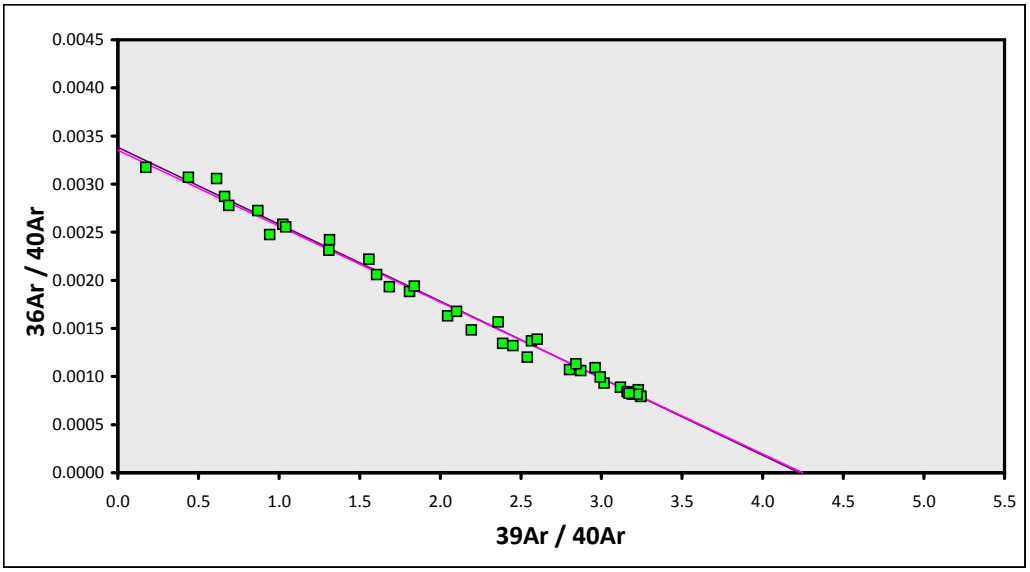
EXP#14D35358 > B4-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A20-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B4-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A20-14)**
Position = **X: 0 | Y: 0 | Z/H: 32.17 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.62030 ± 0.00974**
FCT-NM J-value = **0.00182330 ± 0.00000206**
Air Shot 40Ar/36Ar = **303.2660 ± 0.4974**
Air Shot MDF = **0.99358976 ± 0.00070298 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23656 ± 0.00267	**779.8 ± 9.0**	0.75	100.00	0.018 ± 0.012
		± 1.13%	**± 1.15%**	87%	39	
		Full External Error	± 19.8	1.46	2σ Confidence Limit	
		Analytical Error	± 8.8	1.0000	Error Magnification	
Total Fusion Age		0.23764 ± 0.00330	**783.4 ± 11.0**		39	0.160 ± 0.000
		± 1.39%	**± 1.40%**			
		Full External Error	± 20.8			
		Analytical Error	± 10.9			
Normal Isochron	**297.56 ± 5.13**	0.23506 ± 0.00348	**774.9 ± 11.6**	0.72	100.00	
	± 1.72%	± 1.48%	**± 1.50%**	90%	39	
		Full External Error	± 21.0	1.46	2σ Confidence Limit	
		Analytical Error	± 11.5	1.0000	Error Magnification	
Inverse Isochron	**298.21 ± 5.14**	0.23544 ± 0.00347	**776.1 ± 11.6**	0.74	100.00	
	± 1.72%	± 1.47%	**± 1.49%**	87%	39	
		Full External Error	± 21.0	1.46	2σ Confidence Limit	
		Analytical Error	± 11.4	1.0000	Error Magnification	
				72%	Spreading Factor	



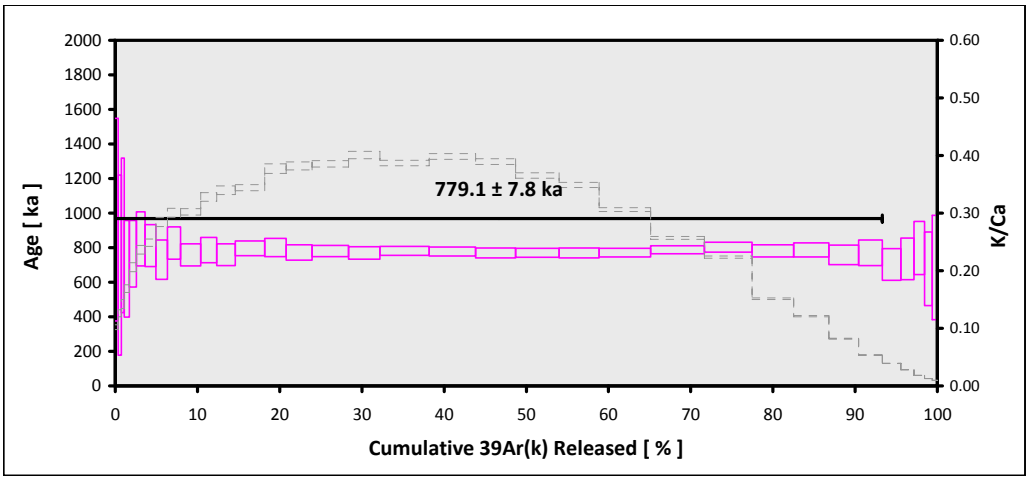


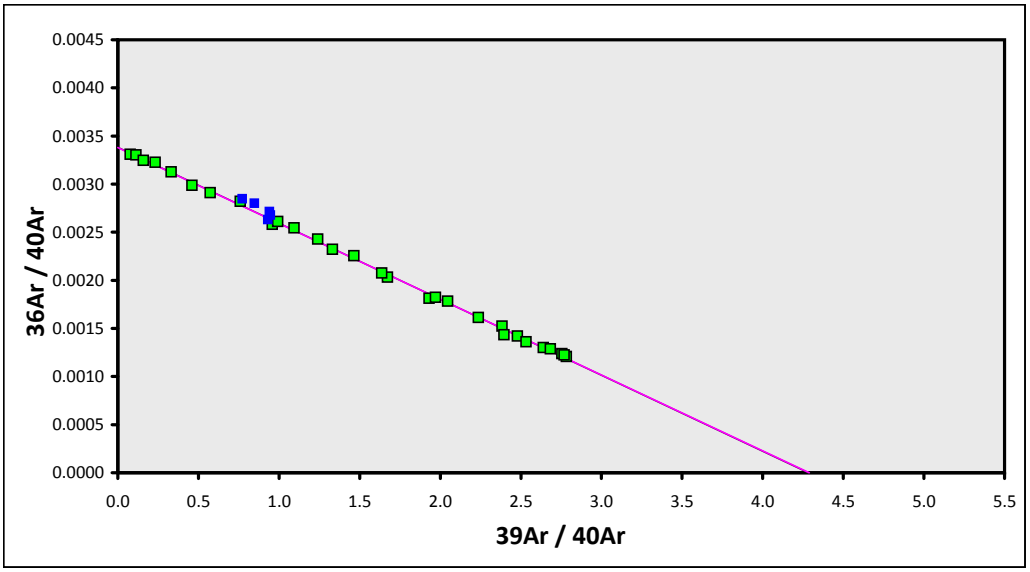
EXP#15D05818 > B4-AR-4A > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A17-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B4-AR-4A**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A17-14)**
Position = **X: 0 | Y: 0 | Z/H: 26.63 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.51672 ± 0.00971**
FCT-NM J-value = **0.00184547 ± 0.00000210**
Air Shot 40Ar/36Ar = **303.4830 ± 0.5372**
Air Shot MDF = **0.99341535 ± 0.00072098 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23350 ± 0.00227	**779.1 ± 7.8**	0.45	93.31	0.099 ± 0.030
		± 0.97%	**± 1.00%**	99%	29	
		Full External Error	± 19.2	1.53	2σ Confidence Limit	
		Analytical Error	± 7.6	1.0000	Error Magnification	
Total Fusion Age		0.23259 ± 0.00293	**776.0 ± 9.9**		34	0.136 ± 0.000
		± 1.26%	**± 1.28%**			
		Full External Error	± 20.1			
		Analytical Error	± 9.8			
Normal Isochron	**295.87 ± 2.07**	0.23304 ± 0.00282	**777.5 ± 9.6**	0.45	93.31	
	± 0.70%	± 1.21%	**± 1.23%**	99%	29	
		Full External Error	± 20.0	1.54	2σ Confidence Limit	
		Analytical Error	± 9.4	1.0000	Error Magnification	
Inverse Isochron	**295.89 ± 2.07**	0.23319 ± 0.00282	**778.0 ± 9.6**	0.46	93.31	
	± 0.70%	± 1.21%	**± 1.23%**	99%	29	
		Full External Error	± 20.0	1.54	2σ Confidence Limit	
		Analytical Error	± 9.4	1.0000	Error Magnification	
				63%	Spreading Factor	



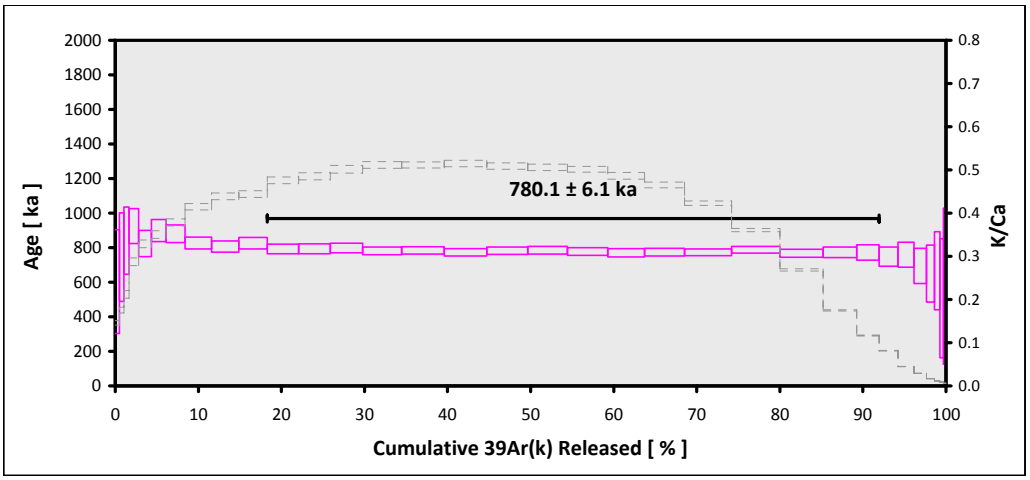


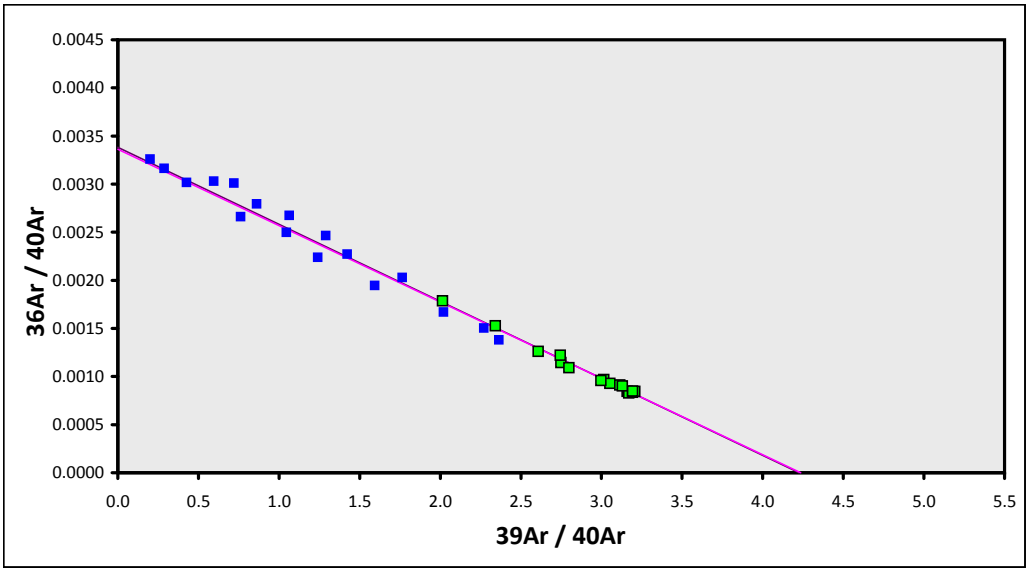
EXP#15D06009 > B4-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A20-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B4-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A20-14)**
Position = **X: 0 | Y: 0 | Z/H: 32.17 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.62030 ± 0.00974**
FCT-NM J-value = **0.00182330 ± 0.00000206**
Air Shot 40Ar/36Ar = **303.4800 ± 0.5311**
Air Shot MDF = **0.99341776 ± 0.00071808 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23665 ± 0.00177 (± 0.75%)	**780.1 ± 6.1 (± 0.78%)**	0.55	73.64	0.208 ± 0.068
		Full External Error ± 18.6		92%	16	
		Analytical Error ± 5.8		1.73	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.23781 ± 0.00212 (± 0.89%)	**783.9 ± 7.2 (± 0.92%)**		33	0.172 ± 0.000
		Full External Error ± 19.1				
		Analytical Error ± 7.0				
Normal Isochron	**296.92 ± 15.33 (± 5.16%)**	0.23602 ± 0.00548 (± 2.32%)	**778.0 ± 18.2 (± 2.33%)**	0.57	73.64	
		Full External Error ± 25.3		89%	16	
		Analytical Error ± 18.1		1.76	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**297.26 ± 15.49 (± 5.21%)**	0.23606 ± 0.00551 (± 2.34%)	**778.2 ± 18.3 (± 2.35%)**	0.58	73.64	
		Full External Error ± 25.3		88%	16	
		Analytical Error ± 18.2		1.76	2σ Confidence Limit	
				1.0000	Error Magnification	
				28%	Spreading Factor	



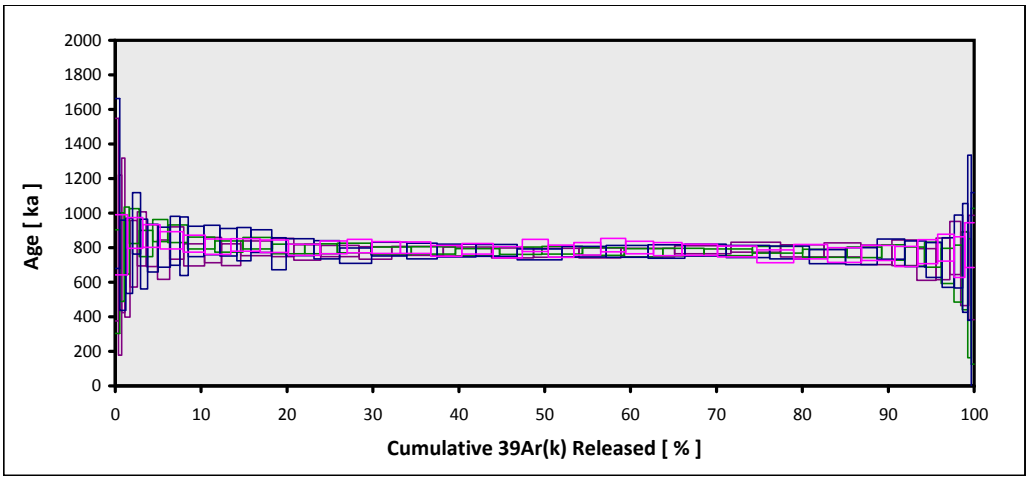


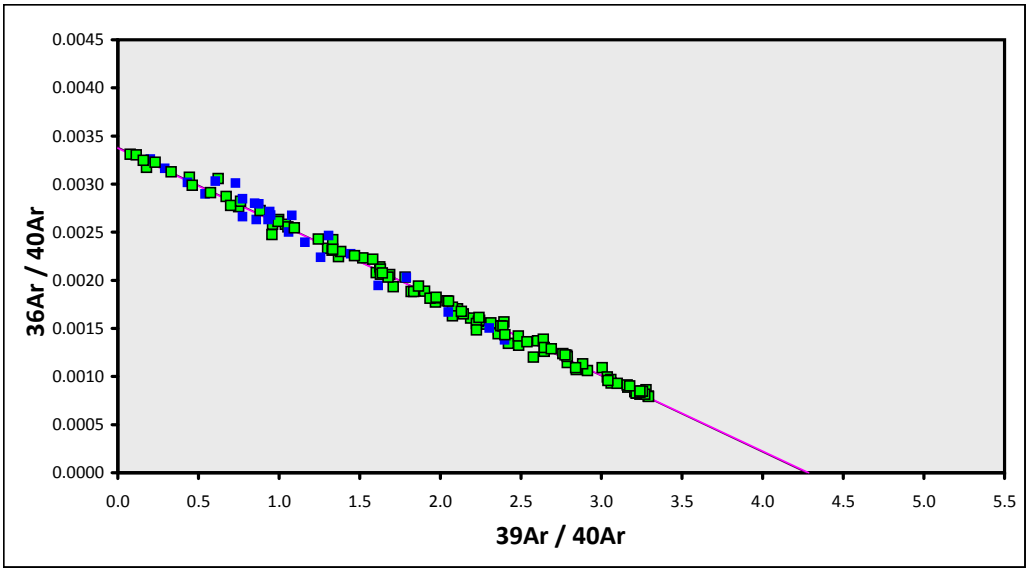
STACK > B4-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
15-OSU-01 (1C3-15) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **B4-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **15-OSU-01 (1C3-15)**
Position = **X: 0 | Y: 0 | Z/H: 5.01 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.49722 ± 0.00926**
FCT-NM J-value = **0.00184971 ± 0.00000202**
Air Shot 40Ar/36Ar = **302.6910 ± 0.5933**
Air Shot MDF = **0.99405310 ± 0.00075157 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Scaling Ratio K/Cl = **4.405**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23396 ± 0.00106 (± 0.45%)	**782.4 ± 3.9 (± 0.50%)**	0.72	88.68	0.025 ± 0.008
		Full External Error ± 18.1		99%	113	
		Analytical Error ± 3.6		1.27	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.23458 ± 0.00131 (± 0.56%)	**784.5 ± 4.7 (± 0.60%)**		139	0.160 ± 0.000
		Full External Error ± 18.3				
		Analytical Error ± 4.4				
Normal Isochron	**296.37 ± 1.68 (± 0.57%)**	0.23312 ± 0.00145 (± 0.62%)	**779.6 ± 5.1 (± 0.66%)**	0.71	88.68	
		Full External Error ± 18.3		99%	113	
		Analytical Error ± 4.9		1.27	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**296.45 ± 1.68 (± 0.57%)**	0.23338 ± 0.00146 (± 0.62%)	**780.5 ± 5.2 (± 0.66%)**	0.72	88.68	
		Full External Error ± 18.4		99%	113	
		Analytical Error ± 4.9		1.27	2σ Confidence Limit	
				1.0000	Error Magnification	
				75%	Spreading Factor	



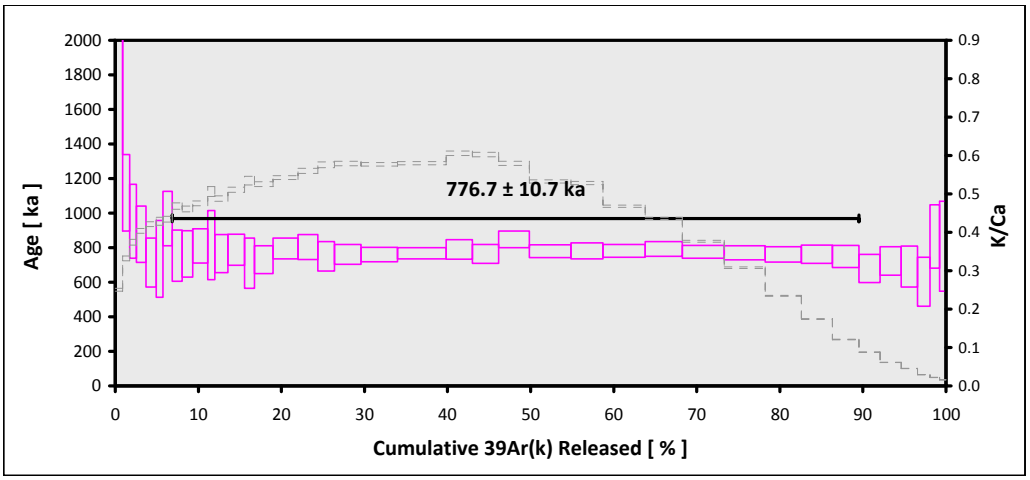


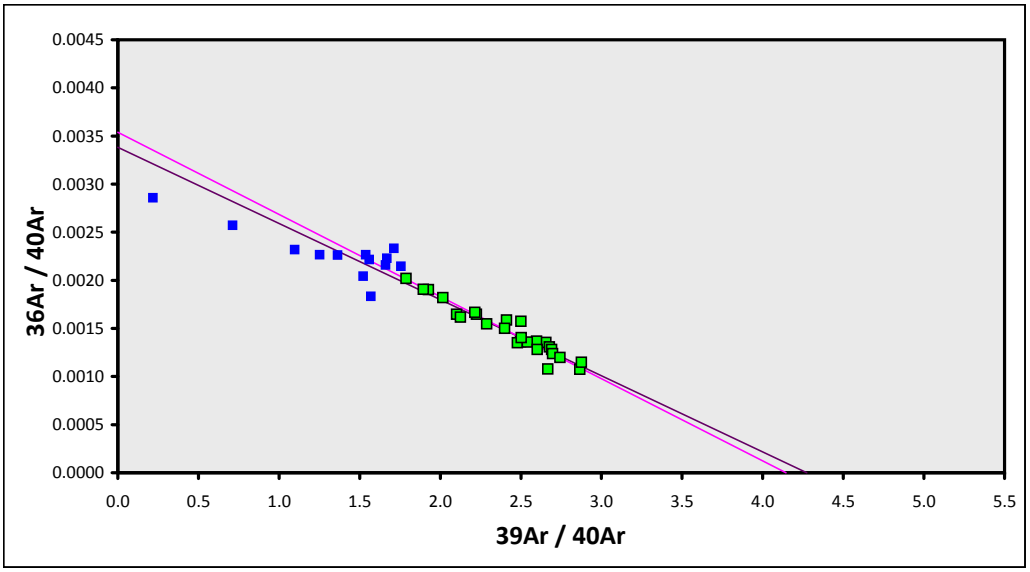
EXP#14D35305 > B5-AR-3 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A18-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B5-AR-3**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A18-14)**
Position = **X: 0 | Y: 0 | Z/H: 29.14 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.56187 ± 0.00967**
FCT-NM J-value = **0.00183574 ± 0.00000207**
Air Shot 40Ar/36Ar = **303.2760 ± 0.4974**
Air Shot MDF = **0.99358171 ± 0.00070296 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23403 ± 0.00317 (± 1.35%)	**776.7 ± 10.7 (± 1.37%)**	0.68	82.66	0.233 ± 0.059
			Full External Error ± 20.5	88%	26	
			Analytical Error ± 10.5	1.57	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.23791 ± 0.00357 (± 1.50%)	**789.6 ± 12.0 (± 1.52%)**		39	0.202 ± 0.000
			Full External Error ± 21.5			
			Analytical Error ± 11.8			
Normal Isochron	**284.09 ± 19.30 (± 6.79%)**	0.23987 ± 0.01127 (± 4.70%)	**796.1 ± 37.4 (± 4.70%)**	0.58	82.66	
			Full External Error ± 41.5	95%	26	
			Analytical Error ± 37.4	1.58	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**282.57 ± 19.23 (± 6.81%)**	0.24134 ± 0.01102 (± 4.57%)	**801.0 ± 36.6 (± 4.57%)**	0.65	82.66	
			Full External Error ± 40.8	90%	26	
			Analytical Error ± 36.6	1.58	2σ Confidence Limit	
				1.0000	Error Magnification	
				26%	Spreading Factor	



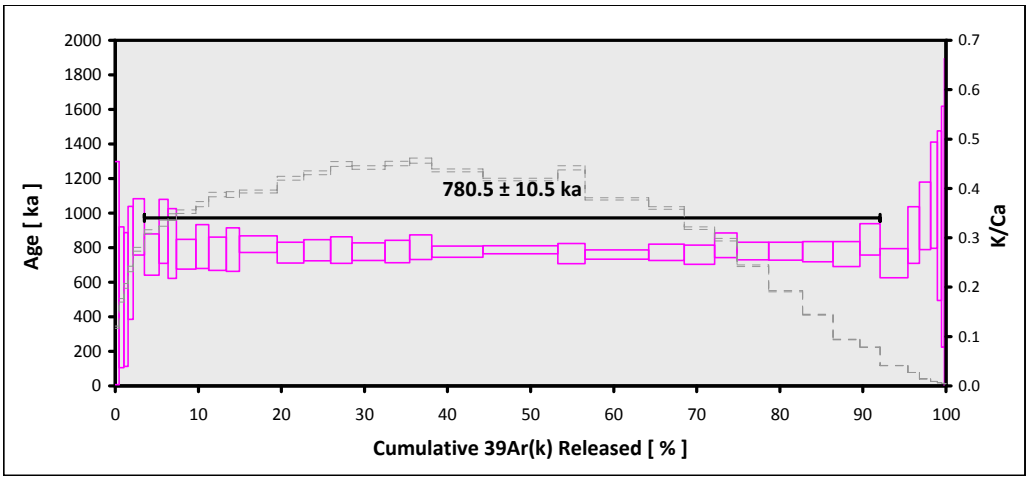


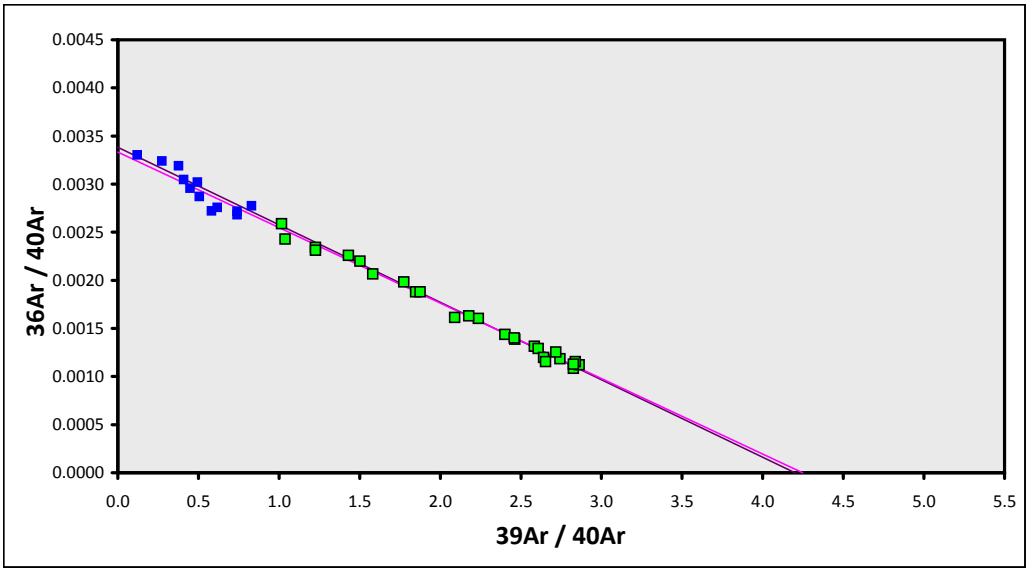
EXP#14D35983 > B5-AR-3A > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A21-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B5-AR-3A**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A21-14)**
Position = **X: 0 | Y: 0 | Z/H: 34.54 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.66898 ± 0.00971**
FCT-NM J-value = **0.00181306 ± 0.00000203**
Air Shot 40Ar/36Ar = **303.2290 ± 0.4943**
Air Shot MDF = **0.99361952 ± 0.00070168 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23812 ± 0.00316 ± 1.33%	**780.5 ± 10.5 ± 1.34%**	0.50 98% Full External Error ± 20.5 Analytical Error ± 10.3	88.56 26 1.57 2σ Confidence Limit 1.0000 Error Magnification	0.151 ± 0.044
Total Fusion Age		0.23999 ± 0.00405 ± 1.69%	**786.6 ± 13.4 ± 1.70%** Full External Error ± 22.2 Analytical Error ± 13.3		38	0.120 ± 0.000
Normal Isochron	**299.77 ± 8.74 ± 2.92%**	0.23523 ± 0.00608 ± 2.58%	**771.1 ± 20.0 ± 2.59%**	0.46 99% Full External Error ± 26.5 Analytical Error ± 19.9	88.56 26 1.58 2σ Confidence Limit 1.0000 Error Magnification	
Inverse Isochron	**300.12 ± 8.77 ± 2.92%**	0.23541 ± 0.00607 ± 2.58%	**771.6 ± 20.0 ± 2.59%**	0.48 99% Full External Error ± 26.5 Analytical Error ± 19.9 43% Spreading Factor	88.56 26 1.58 2σ Confidence Limit 1.0000 Error Magnification	



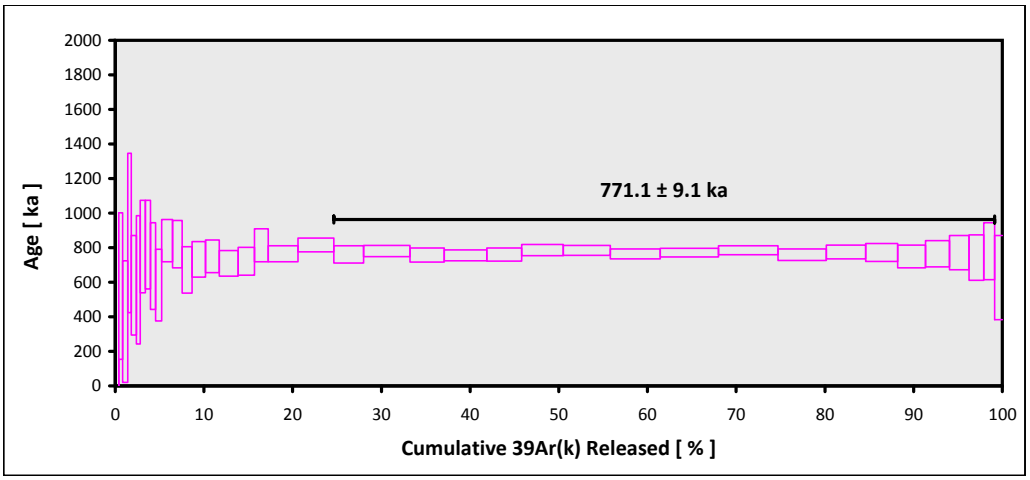


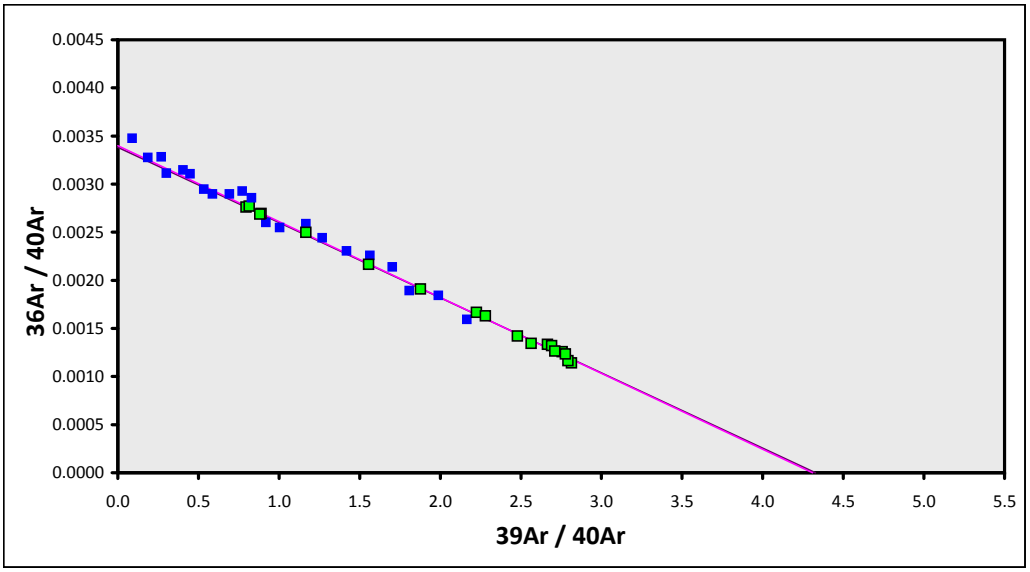
EXP#14D35776 > B5-AR-4 > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A17-14) > Incremental Heating > Andrea Balbas

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Sample = **B5-AR-4**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Andrea Balbas**
Irradiation = **14-OSU-06 (6A17-14)**
Position = **X: 0 | Y: 0 | Z/H: 26.63 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.51672 ± 0.00971**
FCT-NM J-value = **0.00184547 ± 0.00000210**
Air Shot 40Ar/36Ar = **303.2700 ± 0.4974**
Air Shot MDF = **0.99358654 ± 0.00070297 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = Undefined
Heating = **77 sec**
Isolation = **3.00 min**
Instrument = **ARGUS-VI**
Preferred Age = Undefined
Age Classification = Undefined
IGSN = Undefined
Rock Class = Undefined
Lithology = Undefined
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23110 ± 0.00267 (± 1.16%)	**771.1 ± 9.1 (± 1.18%)**	0.38	74.47	0.046 ± 0.025
		Full External Error ± 19.6		99%	18	
		Analytical Error ± 8.9		1.69	2σ Confidence Limit	
				1.0000	Error Magnification	
Total Fusion Age		0.22639 ± 0.00328 (± 1.45%)	**755.4 ± 11.1 (± 1.47%)**		39	0.161 ± 0.000
		Full External Error ± 20.3				
		Analytical Error ± 10.9				
Normal Isochron	**294.23 ± 5.01 (± 1.70%)**	0.23176 ± 0.00427 (± 1.84%)	**773.3 ± 14.3 (± 1.86%)**	0.39	74.47	
		Full External Error ± 22.6		99%	18	
		Analytical Error ± 14.2		1.71	2σ Confidence Limit	
				1.0000	Error Magnification	
Inverse Isochron	**294.14 ± 5.00 (± 1.70%)**	0.23201 ± 0.00426 (± 1.83%)	**774.1 ± 14.3 (± 1.85%)**	0.39	74.47	
		Full External Error ± 22.6		99%	18	
		Analytical Error ± 14.2		1.71	2σ Confidence Limit	
				1.0000	Error Magnification	
				47%	Spreading Factor	



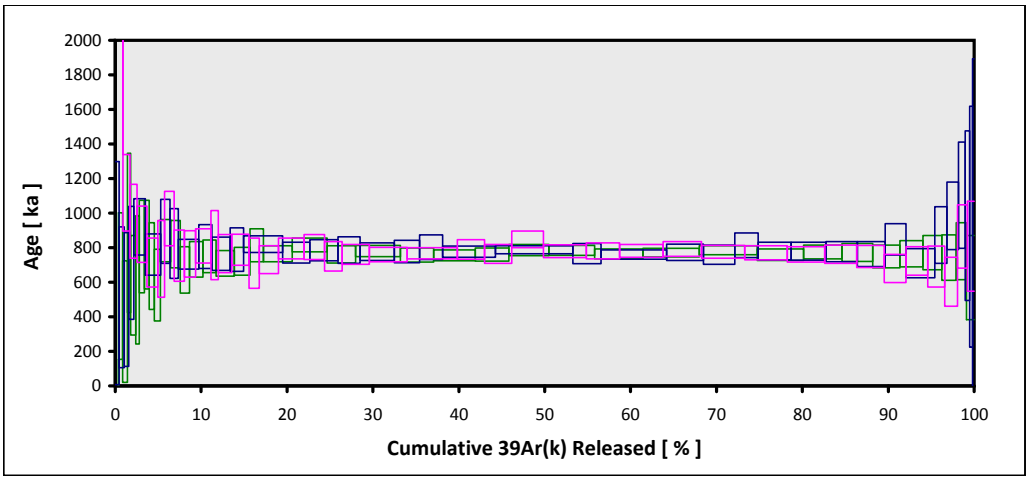


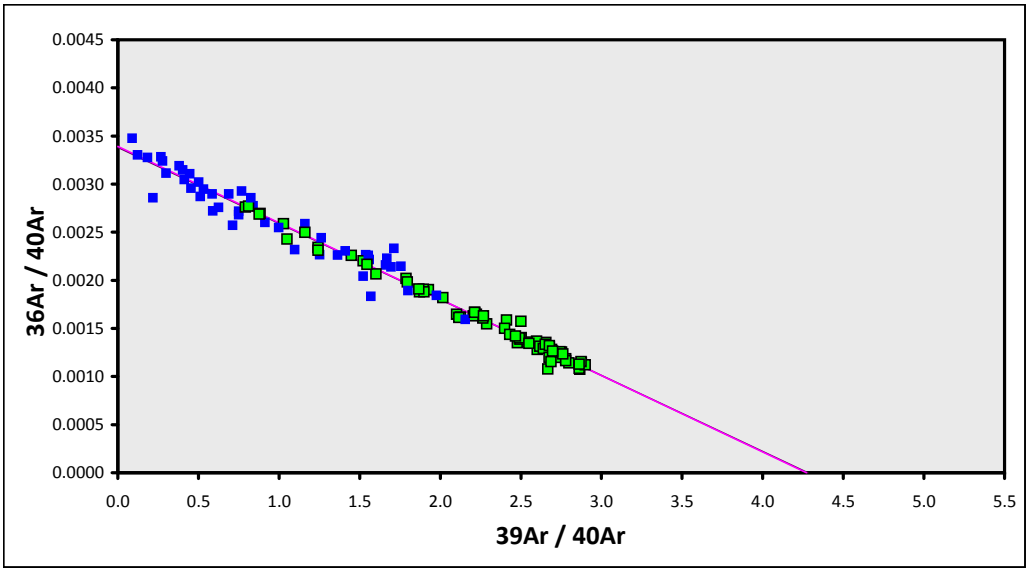
STACK > B5-AR > Groundmass > TAHITI (14-INT-05)
FRENCH POLYNESIA > TAHITI
14-OSU-06 (6A18-14) > Incremental Heating > Dan Miggins

Information on Analysis and Constants Used in Calculations

Project = **TAHITI (14-INT-05)**
Stack = **B5-AR**
Material = **Groundmass**
Location = **Tahiti**
Region = **French Polynesia**
Analyst = **Dan Miggins**
Irradiation = **14-OSU-06 (6A18-14)**
Position = **X: 0 | Y: 0 | Z/H: 29.14 mm**
FCT-NM Age = **28.201 ± 0.023 Ma**
FCT-NM Reference = **Kuiper et al (2008)**
FCT-NM 40Ar/39Ar Ratio = **8.56187 ± 0.00967**
FCT-NM J-value = **0.00183574 ± 0.00000207**
Air Shot 40Ar/36Ar = **303.2760 ± 0.4974**
Air Shot MDF = **0.99358171 ± 0.00070296 (LIN)**
Experiment Type = **Incremental Heating**
Extraction Method = **Bulk Laser Heating**
Heating = **77 sec**
Isolation = **6.00 min**
Instrument = **ARGUS-VI-D**
Preferred Age = **Plateau Age**
Age Classification = **Eruption Age**
IGSN = Undefined
Rock Class = Undefined
Lithology = **Alkali Basalt**
Lat-Lon = Undefined - Undefined
Age Equations = **Min et al. (2000)**
Negative Intensities = **Allowed**
Collector Calibrations = **40Ar 39Ar 38Ar 37Ar 36Ar**
Decay 40K = **5.530 ± 0.048 E-10 1/a**
Decay 39Ar = **2.940 ± 0.016 E-07 1/h**
Decay 37Ar = **8.230 ± 0.012 E-04 1/h**
Decay 36Cl = **2.257 ± 0.015 E-06 1/a**
Decay 40K(EC,β^+) = **0.580 ± 0.009 E-10 1/a**
Decay 40K(β^-) = **4.950 ± 0.043 E-10 1/a**
Atmospheric 40/36(a) = **295.50**
Atmospheric 38/36(a) = **0.1869**
Production 39/37(ca) = **0.0006756 ± 0.0000089**
Production 38/37(ca) = **0.0000718 ± 0.0000092**
Production 36/37(ca) = **0.0002663 ± 0.0000004**
Production 40/39(k) = **0.003823 ± 0.000102**
Production 38/39(k) = **0.012031 ± 0.000019**
Production 36/38(cl) = **262.80 ± 1.71**
Scaling Ratio K/Ca = **0.430**
Abundance Ratio 40K/K = **1.1700 ± 0.0100 E-04**
Atomic Weight K = **39.0983 ± 0.0001 g**

Results	40(a)/36(a) ± 2σ	40(r)/39(k) ± 2σ	Age ± 2σ (ka)	MSWD	39Ar(k) (%,n)	K/Ca ± 2σ
Age Plateau		0.23368 ± 0.00171	**775.6 ± 5.9**	0.55	81.92	0.065 ± 0.020
		± 0.73%	**± 0.77%**	100%	70	
		Full External Error	± 18.5	1.34	2σ Confidence Limit	
		Analytical Error	± 5.7	1.0000	Error Magnification	
Total Fusion Age		0.23428 ± 0.00210	**777.6 ± 7.2**		116	0.155 ± 0.000
		± 0.89%	**± 0.92%**			
		Full External Error	± 19.0			
		Analytical Error	± 7.0			
Normal Isochron	**294.87 ± 4.21**	0.23368 ± 0.00309	**775.5 ± 10.4**	0.52	81.92	
	± 1.43%	± 1.32%	**± 1.34%**	100%	70	
		Full External Error	± 20.4	1.34	2σ Confidence Limit	
		Analytical Error	± 10.3	1.0000	Error Magnification	
Inverse Isochron	**294.84 ± 4.21**	0.23412 ± 0.00308	**777.0 ± 10.4**	0.56	81.92	
	± 1.43%	± 1.32%	**± 1.33%**	100%	70	
		Full External Error	± 20.4	1.34	2σ Confidence Limit	
		Analytical Error	± 10.2	1.0000	Error Magnification	
				49%	Spreading Factor	





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